JANUARY 16, 1956

How to Improve RR Steel Supply . . . p. 15

RAILWAY AGE

One of Five Simmons-Boardman Railway Publications

IN THIS ISSUE

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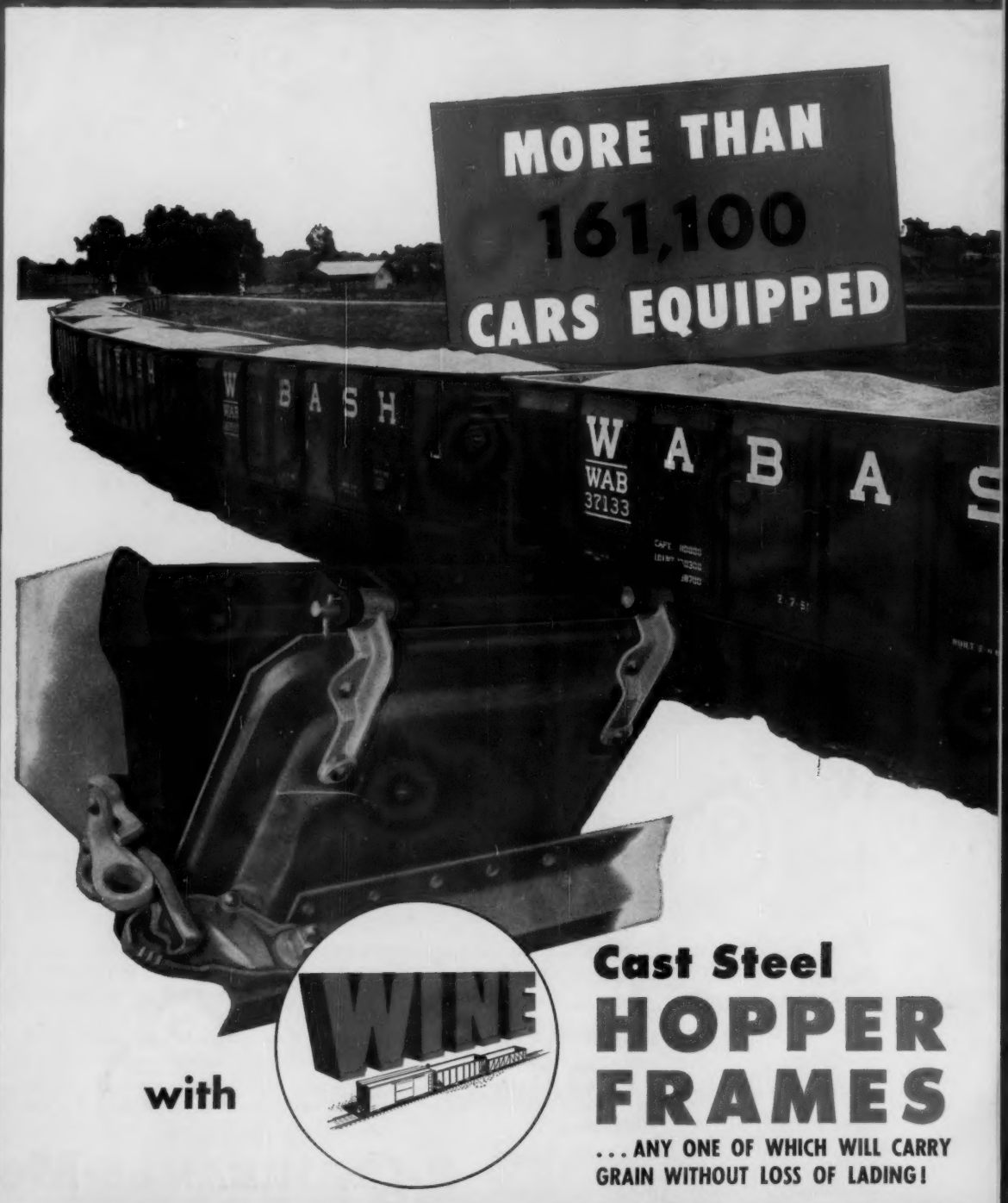

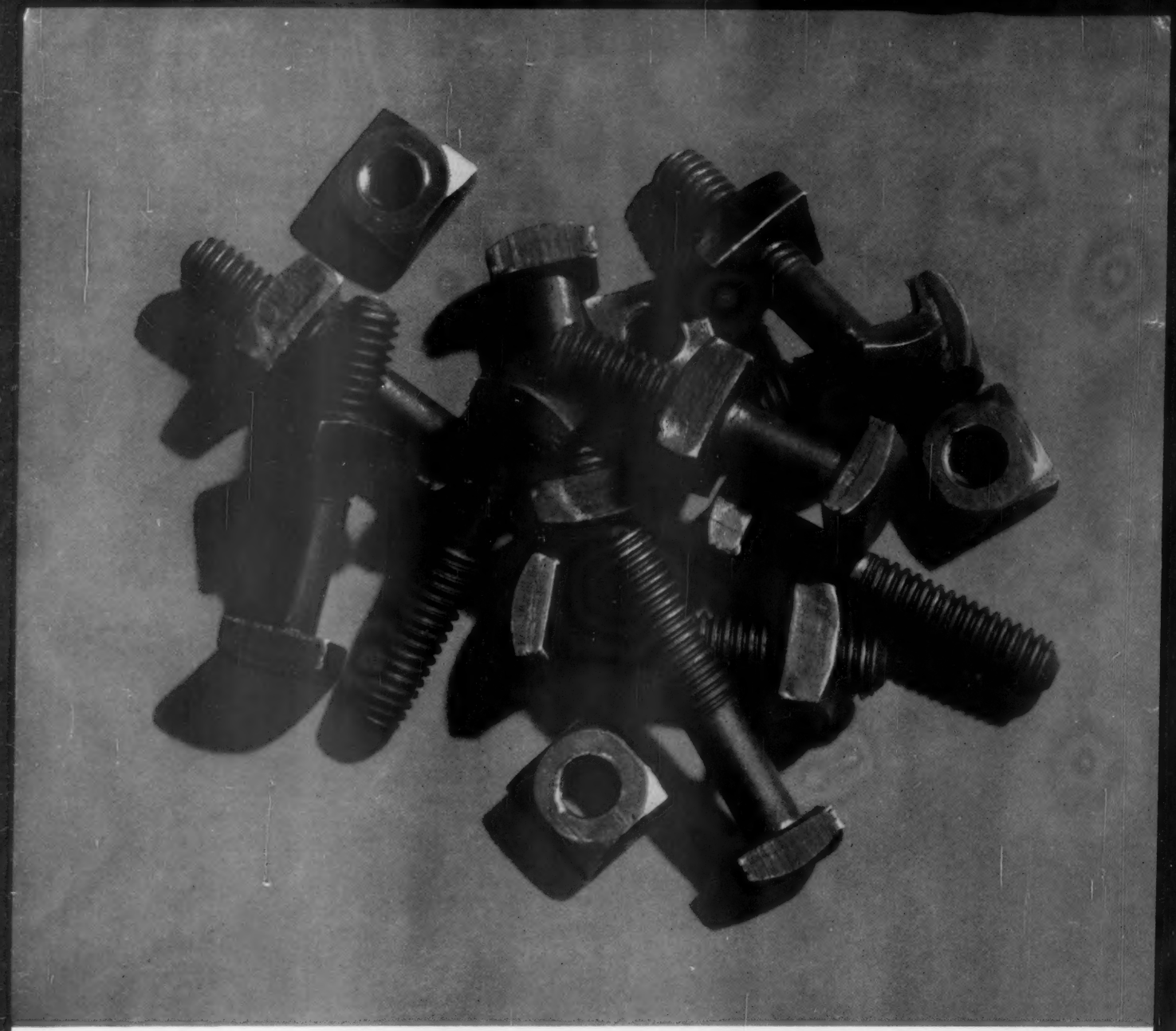

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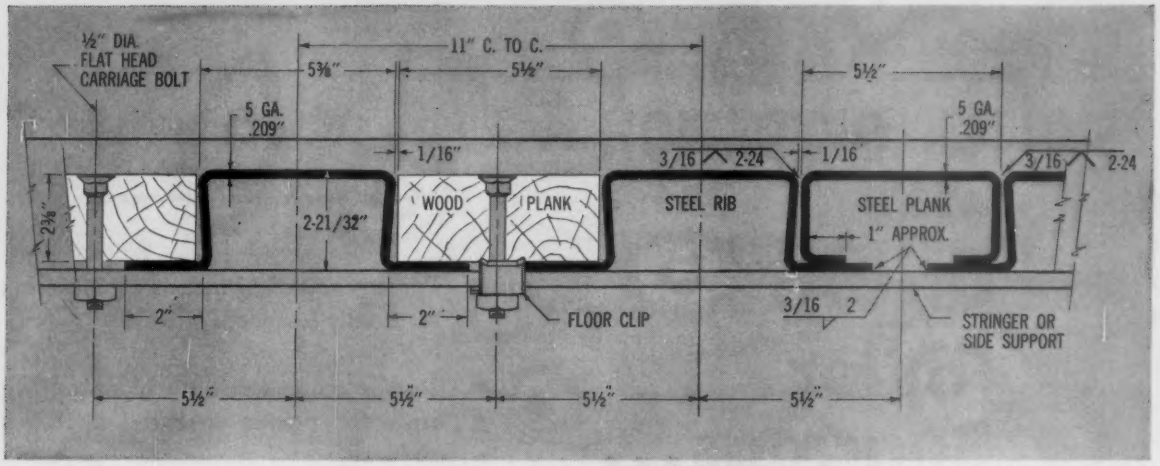

Armco "Blueprint"

FOR CAR FLOOR SAVINGS

Here's how Armco engineers can help you design real savings into freight car floors:

First, they'll study blueprints of your car frames—then suggest any changes needed in standard Armco Freight Car Flooring to suit *your specific conditions.*

Armco Freight Car Flooring is designed for long-range economy. The hat-section steel ribs deliver the best known combination of beam strength and floor surface for every pound of steel. Stout wood planks provide real nailability—make every car good for many kinds of lading, bulk or unit.

Add to this the operating economy of strong, well-reinforced floors which need few repairs, and you have savings which continue to grow from time of installation through years of rugged service.

easily installed

When tailor-made Armco Freight Car Flooring arrives at your shops, ribs will be coped to clear rivet heads if your car-construction requires. Where wood nailing strips are impractical, special steel planks are supplied to clear bolsters. To further speed assembly, detailed drawings reach you before steel ribs and planks arrive. This means you can floor or refloor gondola, box or flat cars on a production basis—without costly fitting of parts.

For more information about this multi-purpose flooring, write for the booklet, "Armco Freight Car Flooring," at the address below.

Each Armco steel rib is welded to the car underframe in several places. This strong, welded lattice greatly increases the resistance of the underframe to twisting and racking.

Nailable wood planks that alternate with steel hat sections permit easy fastening of skids and braces—make Armco Freight Car Flooring a truly multi-purpose car floor.

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766 CURTIS STREET, MIDDLETOWN, OHIO

SHEFFIELD STEEL DIVISION • ARMCO DRAINAGE & METAL PRODUCTS, INC. • THE ARMCO INTERNATIONAL CORPORATION

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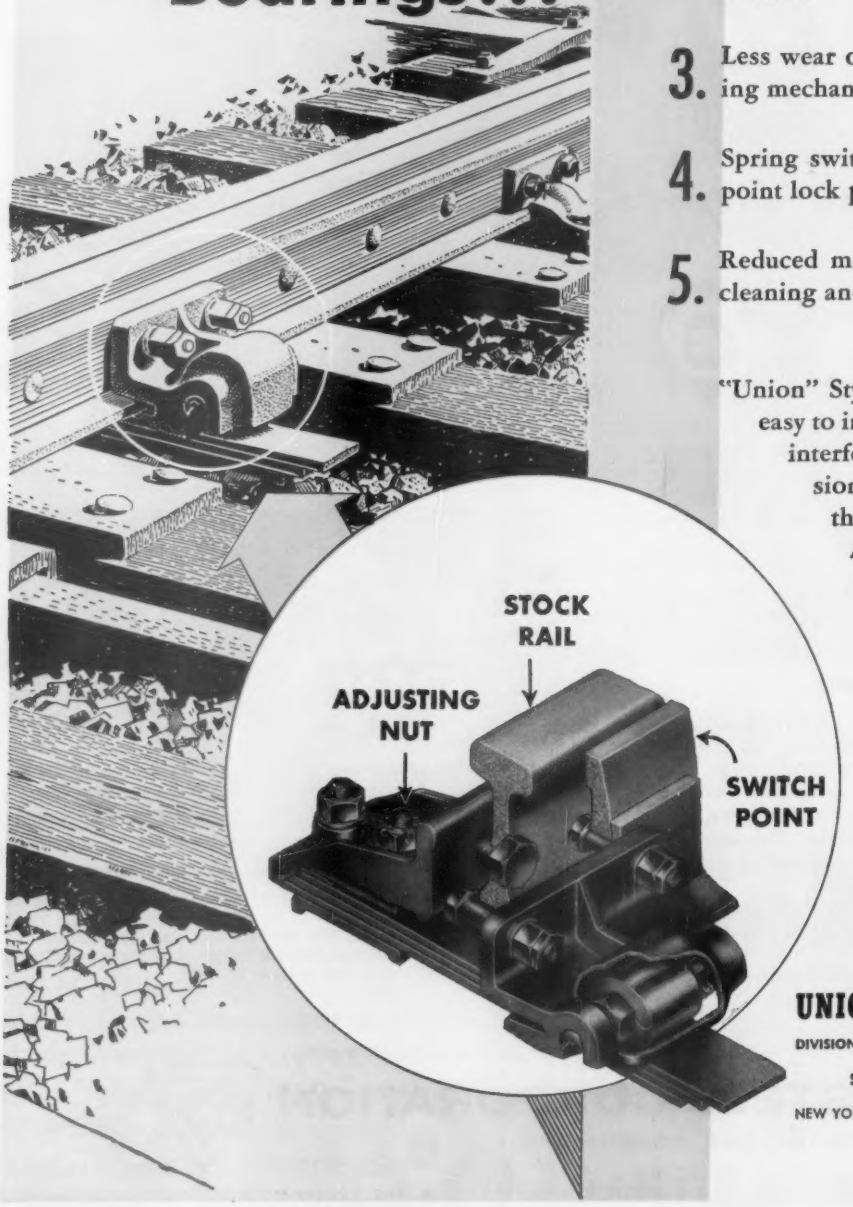

Here's What the Records Show!*

**Factual data supplied upon request.*

1. Force required to move switch points materially lessened.
2. Power consumption and operating time for power-operated switches reduced.
3. Less wear of connections and operating mechanism.
4. Spring switch and mechanical facing point lock performance improved.
5. Reduced maintenance costs . . . less cleaning and oiling required.

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY
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LONDON E.C. 2, England—Sibley-Field Publishing Company, Ltd., 48 London Wall
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PUBLISHER
Robert G. Lewis, *New York*

DIRECTOR ADVERTISING SALES
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SALES MANAGER
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DISTRICT SALES MANAGERS
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Vol. 140, No. 3
January 16, 1956

CONTENTS and Week at a Glance

"Aerotrain," General Motors' experimental lightweight passenger equipment, made practically simultaneous inaugural runs January 5 on the Pennsylvania and New York Central. PRR's "Aerotrain" begins revenue service February 6. . . . 6

Oral argument on the proposed 7% increase in railroad freight rates has been set by the ICC for February 20. Tariffs embodying the increase, with a February 25 effective date, have been published. . . . 10

Net income of Class I railroads during 1955's first 11 months totaled $830,000,000, up $268,000,000 over net income for the comparable 1954 period. Rate of return for the 12 months ended last November averaged 4.33%, compared with 3.17% for the 12 months ended with November 1954. . . . 11

FORUM: Now to improve steel supply for cars—that is something which must be done if the imposing backlog of freight car orders now on builders' books is converted into actual cars on the road. There is a choice of ways by which the needed material can be obtained —private initiative or by the government. . . . 15

How to lay rails 1,440 ft long has been worked out on the Santa Fe so the operation is pretty much routine. Experience gained with this technique will be applied this year to laying about 250 track-miles of continuous welded rail. . . . 18

CTC saves time for freights on the C&O's 135-mile single-track line between Saginaw, Mich., and Ludington, carrying traffic on exacting schedules in connection with Lake Michigan car ferries. . . . 22

Equipment policy pays off—contributing to a 33% increase in NOI—so WP management considers its pro-

AIR COSTS MONEY!

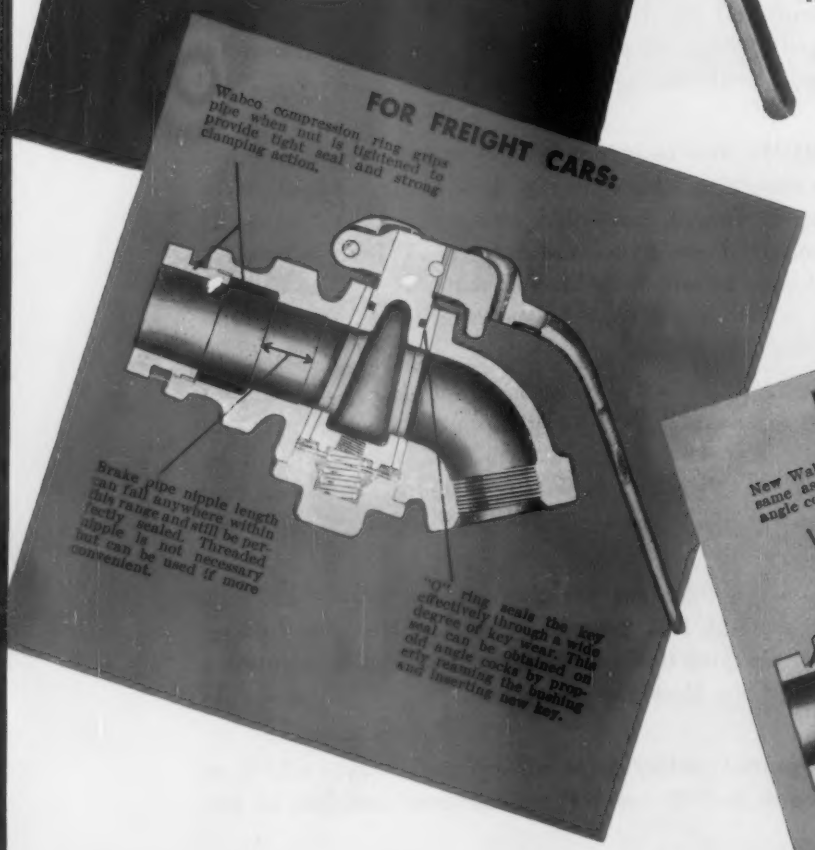
Stop leakage with new WABCOSEAL® Angle Cocks

BRAKE pipe leakage increases compressor operation, lowers its efficiency and causes difficult train handling. Reduce leakage to the minimum by installing the *new* Wabcoseal Angle Cock shown here. Two styles are available—with or without spring-locking handle.

Heart of the new Wabcoseal Angle Cocks is the sealed key that stays tight through a wide degree of key wear. A Wabco compression ring replaces the standard tapped thread at the brake pipe end to give a positive seal. Also, adequate end tolerance is provided so brake pipe nipple need not be cut to precise length.

The passenger car and locomotive angle cock has a spring loaded handle that snaps the socket into locked position when handle is fully open or closed and keeps it there despite vibration and shock.

The sealed key and spring locking handle are available separately for application to present angle cocks.


FOR FREIGHT CARS:
Wabco compression ring grips pipe when nut is tightened to provide tight seal and strong clamping action.
Brake pipe nipple length can fall anywhere within this range and still be perfectly sealed. Threaded nipple is not necessary nut can be used if more convenient.
"O" ring seals the key effectively through a wide degree of key wear. This seal can be obtained on old angle cocks by properly reaming the bushing and inserting new key.

FOR PASSENGER CARS AND LOCOMOTIVES:
New Wabcoseal fitting is same as for freight car angle cock shown at left.
Shouldered Pin
Strong spring is compressed when handle is raised. Socket is snapped into locking position when handle is fully opened or closed. Available for application to angle cocks now in use. A shouldered pin provides proper freedom of handle movement.
Sealed key is identical to freight car angle cock key shown at left.

Westinghouse Air Brake
COMPANY
AIR BRAKE DIVISION WILMERDING, PA.

Current Statistics

Operating revenues, eleven months	
1955	$9,248,147,540
1954	8,573,470,254
Operating expenses, eleven months	
1955	$6,951,141,263
1954	6,755,791,805
Taxes, eleven months	
1955	$1,017,788,031
1954	821,712,588
Net railway operating income, eleven months	
1955	$1,050,329,204
1954	766,016,100
Net income, estimated, eleven months	
1955	$ 830,000,000
1954	562,000,000
Average price 20 railroad stocks	
January 10, 1956	95.61
January 11, 1955	85.91
Carloadings revenue freight	
Fifty-two weeks, 1955	37,883,543
Fifty-two weeks, 1954	33,914,953
Average daily freight car surplus	
Wk. ended Jan. 7, 1956	5,989
Wk. ended Jan. 8, 1955	76,116
Average daily freight car shortage	
Wk. ended Jan. 7, 1956	1,105
Wk. ended Jan. 8, 1955	84
Freight cars on order	
December 1, 1955	109,370
December 1, 1954	14,805
Freight cars delivered	
Eleven months, 1955	33,137
Eleven months, 1954	33,385
Average number of railroad employees	
Mid-November 1955	1,077,086
Mid-November 1954	1,036,734

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PUBLICATIONS (A.B.P.) AND AUDIT BUREAU OF CIRCULATION (A. B. C.) AND IS INDEXED BY THE INDUSTRIAL ARTS INDEX, THE ENGINEERING INDEX SERVICE AND THE PUBLIC AFFAIRS INFORMATION SERVICE. RAILWAY AGE, ESTABLISHED IN 1856, INCORPORATES THE RAILWAY REVIEW, THE RAILWAY GAZETTE, AND THE RAILWAY AGE GAZETTE. NAME REGISTERED IN U. S. PATENT OFFICE AND TRADE MARK OFFICE IN CANADA.

Departments

Figures of the Week	11
Forum	15
Labor & Wages	8
Law & Regulation	10
Operations	6
Organizations	12
People in the News	10
Questions and Answers	13
Railway Market	9
Railway Officers	12
Rates & Fares	10
Revenues & Expenses	29
Supply Trade	11

Week at a Glance CONTINUED

cedures, though unorthodox in some respects, well suited to its requirements. . . . 24

Revenue and expense figures in detail, for November and eleven months of last year. . . . 29

COMING: Next week—Maximum automation is what the Pennsylvania believes it is realizing from its investment in Conway yard—an investment that will add up to $34 million by the end of this year.

BRIEFS

A wage increase of $3 a day, along with a company-financed health and welfare plan, will be sought this year by the Brotherhood of Locomotive Firemen & Enginemen. Notices are expected to be filed with individual roads this month.

Patrick B. McGinnis has withdrawn his application to the ICC for authority to serve as president and director of the Boston & Maine while holding those positions on the New Haven. This step was taken after an ICC examiner refused to postpone hearings on the application at which opponents sought to cross question Mr. McGinnis. Counsel indicated he was too deeply involved in the New Haven's current operating difficulties to be present at the hearing.

The "Palace of Progress" plan for "air rights" development of a commercial structure over New York's Pennsylvania Station (announced in *Railway Age*, June 13, 1955), has been ditched, at least for the present, by its proponents, Webb & Knapp, New York realty operators.

Eight U. S. railroads have been cited as "excellently managed" in the latest analysis of this nature by the American Institute of Management. The eight are the Santa Fe, Atlantic Coast Line, Burlington, Illinois Central, Louisville & Nashville, Seaboard, Southern Pacific and Union Pacific.

HEADLINERS at Detroit luncheon after "Aerotrain's" initial New York Central run from Chicago to Detroit included (above, left), in the usual order: Harlow H. Curtice, General Motors president; Robert R. Young, NYC chairman; and Alfred E. Perlman, NYC president. At right is an interior view of an "Aerotrain" coach. Passengers are said to "ride on air" because its new air suspension system replaces conventional steel springing.

"Aerotrain" Makes Debut on Two Railroads

General Motors' lightweight experimental equipment operated by Pennsylvania and New York Central January 5 in Washington-Newark and Chicago-Detroit runs

General Motors' experimental lightweight "Aerotrain" made its inaugural runs January 5 on the New York Central from Chicago to Detroit and on the Pennsylvania from Washington, D.C., to Newark, N.J.

About 300 guests were aboard the PRR's set of the new-type equipment, and approximately the same number of persons made the non-stop run to Detroit on the NYC.

Fuel Costs Low—For the 284-mile non-stop Chicago-Detroit trip fuel costs were about $20, Robert R. Young, NYC chairman, said. The fuel cost was said to be about one-fourth of that for a regularly scheduled train on the run.

Substantially more weight was pulled behind the train's 1,200-hp locomotives than had originally been planned. One GM spokesman disclosed that the locomotive was designed to pull 10 30,000-lb cars, but when the cars were completed they weighed closer to 40,000 lb each.

[The "Aerotrain" was described in an illustrated article in the December 26, 1955, *Railway Age*, page 30.]

"No one knows what is going to be the final solution for the equipment side of the railroad passenger problem," James M. Symes, PRR president, said at a dinner in Philadelphia, after arrival there of that road's "Aerotrain." "I am sure you all know that the train we rode today is not a final product. In building it GM already has learned two or three things which, if they were doing it again, they would change and improve. But in this initial development they have contributed significantly—both on the engineering side and on the economic side—toward finding a way to build railroad passenger coaches which will help us to meet the service and economic conditions of the future."

With "Aerotrain," Mr. Symes continued, GM is helping the railroad industry find answers to problems with which a railroad must live if it is to be successful in operating future passenger service at a profit. Pointing out that the PRR has worked with GM almost continuously since the train was "just a gleam" in the eye of N. C. Dezendorf, vice-president of GM and general manager of its Electro-Motive Division, Mr. Symes emphasized that "this is entirely their train. They made all the decisions, all the experiments, all the tests—and incidentally and importantly—they put up all the money. Certainly they are to

"WELCOME ABOARD"

Some of the Pennsylvania's guests on the January 5 inaugural run of its "Aerotrain" from Washington to Newark traveled from New York to the national capital via a chartered airplane. Each such guest on the plane was given a folder, headed as above, which contained this message:

It isn't every day that a railroad welcomes its friends aboard an airplane. Some of you may wonder the reason for our choosing air line transportation today. In addition to the speed, which will make your round trip shorter, we are able, by arranging this special flight, to have you as our guests both ways. Under an Interstate Commerce Commission ruling, railroads are not permitted to have guests on trains which also carry passengers who pay fares. This creates no problem concerning your ride back on the new General Motors "Aerotrain," because under an interpretation of the Interstate Commerce Act, by Commissioner Joseph B. Eastman, when he was chairman of the ICC, we are permitted to carry guests on demonstration runs on which no pay passengers are carried.

We are happy you can make the trip and know our good friends the air line people, are also glad to have you aboard. *Happy Landings!*

be commended for that kind of private enterprise—and the progress it produces."

New Concept—Mr. Young, addressing a Detroit luncheon after the NYC's run, said "Aerotrain" is a "new concept" of railroad passenger equipment which offers railroads a chance to take a new look at the problem of passenger deficits. "The economics of our entire passenger operations," he added, "terminal as well as road, must in some way be made to justify putting this train into volume production, with frequent model changes."

Harlow H. Curtice, GM president, told the Detroit luncheon group that "railroads must and will share in the dynamic growth of our national economy," and that GM had developed "Aerotrain" as a contribution GM hopes will help railroads during a period "when transportation will become a vastly bigger job than it is today.

"Our objective in testing 'Aerotrain' will be the lowering of the noise level, further weight reduction and improvement of the ride," Mr. Curtice said. "On a mass production basis it should be possible to produce such a standard train, including the locomotive, to sell for somewhere between $1,500 and $1,750 per seat. This compares with the $2,800 per seat railroads have been paying for conventional coach equipment and locomotive."

Mr. Curtice said GM was able to complete "Aerotrain" in 18 months, although the design was new, principally because virtually all component parts were either already in quantity production for other purposes or were modifications and adaptations of mass-production items.

NYC's set of "Aerotrain" equipment made a second demonstration run January 6 between Washington, D.C., and Quantico, Va. Among those addressing the luncheon at Quantico was Anthony F. Arpaia, chairman of the Interstate Commerce Commission.

"The 'Aerotrain' may be one of the answers of railroad management to the serious problem of attracting enough passengers to make such serv-

ROBERT G. LEWIS NAMED RAILWAY AGE PUBLISHER

In a continuation and intensification of its expanding publication service to the railroad industry, Simmons-Boardman Publishing Corporation has named Robert G. Lewis—heretofore the company's director of circulation—as publisher of *Railway Age* and its other railway magazines. Robert C. Van Ness, Mr. Lewis' assistant in the circulation department, has been named acting director of circulation. In announcing Mr. Lewis' appointment, James G. Lyne, company president and editor of *Railway Age*, said:

"There is no other industry, we believe, which is served as intensively by its industry press as railroads are by Simmons-Boardman. In addition to our weekly, *Railway Age*, now in its 100th year of service, we have the specialized monthly publications—*Railway Locomotives and Cars*, *Railway Track and Structures*, *Railway Signaling and Communications*, and *Railway Freight Traffic*. Each of these papers is pin-pointed to an important specialized audience within the industry. We are now about to begin a quarterly publication, in Spanish, *Selecciones del Railway Age*, to introduce and publicize North American railway standards and practices, primarily in Latin America.

"The publishing function for these magazines—coordination of editorial, advertising and circulation operations—has heretofore been a responsibility of top management. With the expansion of the industry and our publication service to it, the coordinating functions of a full-time publisher have become imperative.

"The responsibilities and duties of department heads of our railway publications have not been altered in the slightest. J. S. Crane continues as our senior sales authority, and J. R. Thompson as our director of advertising sales. The responsibility of W. H. Schmidt, Jr., executive editor of *Railway Age* and editorial director of the other railway publications, is unaltered." Mr. Lyne added that, as editor of *Railway Age*, he intends to continue his editorial writing and other activities related to industry policy, and to intensify his work with the railway papers.

In assuming his new duties, Mr. Lewis said:

"Railroads have reached a new high level of dynamic improvement. At no time in history has their physical and organizational advancement proceeded at such a brisk tempo as now. Never before have they been so receptive to new ideas and new products—all of which adds up to the conclusion that the constantly improving editorial and circulation coverage provided by *Railway Age* and its associated magazines is more necessary than ever to the industry, and to the manufacturers serving the industry. The railroads are a revitalized business, with every promise of becoming an outstanding 'growth industry' and we at Simmons-Boardman intend to keep our publication operations in the vanguard of the industry's progress."

Mr. Lewis, in addition to his outstanding career in circulation work with Simmons-Boardman, also has a background of editorial experience, having been a *Railway Age* editor before he transferred to circulation in 1950. A Philadelphian, 39 years of age, Mr. Lewis began his business life as a railroad man. He had 12 years of service with the Pennsylvania, in the personnel, transportation, and freight traffic departments—and in the purchasing and wage schedules departments of the Bessemer & Lake Erie—before joining Simmons-Boardman in 1947. He served four years with the U. S. Naval Reserve, during and immediately after World War II; and is a past president of the National Circulation Round Table of Associated Business Publications, Inc.

Robert G. Lewis

ice pay," Mr. Arpaia said in his first public statement since becoming ICC chairman January 1. "It is not the easy solution suggested in some quarters of having taxpayers subsidize the losses, but it is far more constructive and beneficial to the private enterprise system. I think inauguration of this train is significant for another reason. It demonstrates that there is an alternative to attracting traffic besides cutting fares—in other words, giving people more for their money. . . . If the rails can give the customer more for the same price at less cost to themselves, the answer to the passenger deficit may be found in the 'Aerotrain.' . . . The initiative and determination of those railroads who are taking this forward step should be endorsed by government and public alike."

Revenue Service Soon—Both the PRR and the NYC, neither of which has yet purchased a set of the equipment, will, during the next several weeks, place their respective "Aerotrains" in experimental revenue service. The PRR train will begin operation February 6 between New York and Pittsburgh, and the NYC's will begin regular Chicago-Detroit service about May 1. Before May 1 the "Aerotrain" to be operated by the NYC will make test runs on several railroads, including the Baltimore & Ohio, the Santa Fe, the Southern, the Southern Pacific, the New Haven, the Union Pacific and the Wabash.

The PRR's daily round-trip "Aerotrain" service between New York and Pittsburgh will start from Pennsylvania Station, New York, at 8 a.m., with Pittsburgh arrival scheduled for 3:25 p.m. The eastbound trip will begin at 4 p.m. and reach Pennsylvania Station at 11:25 p.m.

Light meals and refreshments at budget prices will be available to PRR passengers. For breakfast and during other hours a variety of popular coach lunch service items—fruit juices, coffee, pastries, ice cream and sandwiches—will be sold throughout the train. For lunch and dinner, buffet-box meals consisting of sandwiches, salad, cake or pastry, fruit and beverage, conveniently packaged in attractive containers and costing $1, will be served in all coaches.

Hot tray meals for lunch and dinner will be available to passengers in the first two cars for $1.50. Because this service requires special equipment and special training for attendants, it is being limited, at least initially, to two specified cars. Hot tray meals will consist of such items as beef casserole, salad, roll, dessert and beverage. Passengers in other coaches may go to cars one and two for hot tray service if seats and supplies are available.

Cars five and six will have vending machines, one dispensing assorted pastries at 15¢ each; another for candy, crackers and the like, at 10¢ an item; and the third will provide coffee—black or with cream and with or without sugar—for 10¢.

Trailer Train to Begin Service About March 1

Trailer Train Company, formed late last year to provide railroads with a pool of special flat cars for transporting trailers on a national basis, will begin operations about March 1. Its formation was announced in *Railway Age*, December 26, page 7.

The firm has ordered 1,000 new-type flat cars, each of which will carry one truck trailer, from ACF Industries (see Railway Market column). Fifty of cars also have been ordered by the Rock Island, as reported in *Railway Age*, December 26, page 7. Pending delivery of the new-type cars, photographs of which appear at the bottom of this page, Trailer Train has arranged to purchase 500 75-ft trailer-carrying flat cars from the Pennsylvania and the Van Car Company.

Eugene F. Ryan, Trailer Train vice-president and general manager, and also president of Rail-Trailer Company, announced at a press conference last week that the former company is owned 25% by the PRR, 25% by Rail Trailer, and that the remaining 50% interest is for sale to other railroads.

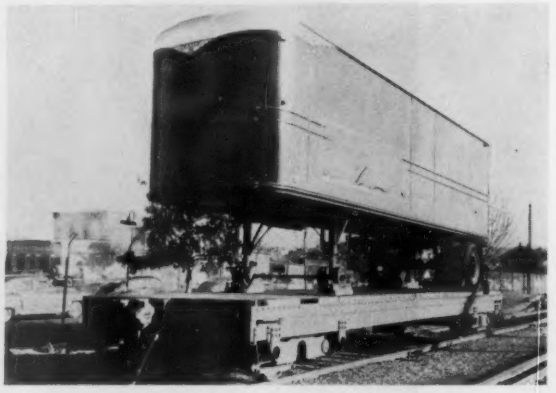
B&O Extends Piggyback to Cleveland, Youngstown

The Baltimore & Ohio on January 6 extended its piggyback service to Cleveland and Youngstown. Service is now provided between Cleveland-Youngstown and Philadelphia, Baltimore, Washington, D.C., Chicago, East St. Louis, Ill.-St. Louis, Indianapolis, Louisville and Cincinnati. In the Youngstown district, the new service includes such points as Warren, Ohio, Niles and Lowellville.

Labor & Wages

Teamsters-NH "Piggyback" Fight Sent to Labor Board

The United States Supreme Court has ruled that the National Labor Relations Board has jurisdiction over controversies involving railroads and truck drivers employed by motor carriers utilizing "piggyback" services.



ALMOST ANY TYPE FREIGHT CAR can be made from an "all-in-one" basic car announced last week by ACF Industries. Equipped with standard couplers, its weight and cost are said to be only about one-half that of standard types of freight cars with comparable equipment, which includes roller bearings, rubber draft gears and a self-cleaning floor. Called the "ADAPTO," its air-cushioned, adjustable platform has provisions for interchanging attachments for quick conversion to box car (above, left), piggyback service (above, right), gondola car, refrigerator car or tank car. First railroad to purchase the cars was the Rock Island, which placed an order for 50 basic cars, with box compartments. Second order, for 1,000 units, reported in this issue's Railway Market column, was by Trailer Train Company. ACF will supply, in addition to the basic ADAPTO flat cars, the containers, tanks, gondolas, hoppers and other superstructures, so railroads may have them available at freight terminals for quick conversion.

In a unanimous opinion, delivered January 9 by Justice Minton, the court set aside rulings of Massachusetts state courts which had accepted jurisdiction and enjoined a local of the International Brotherhood of Teamsters from interfering with "piggyback" operations of the New Haven.

The interference involved activities of IBT business agents who "persuaded" truck drivers to refrain from delivering trailers to the New Haven or loading trailers onto flat cars. Upon suit by the NH, the injunction was granted by the Superior Court of Suffolk County, and the Supreme Judicial Court of Massachusetts affirmed.

The U. S. Supreme Court held in effect that NH should have gone to the National Labor Relations Board rather than the courts. It determined that exemption provisions of the National Labor Relations Act and Labor Management Relations Act, which protect the Railway Labor Act in its coverage, do not preclude NH from availing itself of NLRB procedures in the present case. The court said:

"It is of course true that employer-employee relationships of railroads are governed by the Railway Labor Act. . . . It is clear that neither railroads nor their employees may carry their grievances with one another to the NLRB for resolution. But it does not follow from this that a railroad is precluded from seeking the aid of the board in circumstances unrelated to its employer-employee relations. . . . The Massachusetts court found that petitioner union was in no way concerned with [NH] labor policy, nor was there any claim that the union interfered in any manner whatsoever with railroad employees.

"The NLRB is empowered to issue complaints whenever 'it is charged' that any person subject to the act is engaged in any proscribed unfair labor practice. Under the board's rules such a charge may be filed by 'any person.' We think it clear that Congress, in excluding 'any person subject to the Railway Labor Act' from the statutory definition of 'employer,' carved out of the Labor Management Relations Act the railroads employer-employee relationships which were, and are, governed by the Railway Labor Act. But we do not think that by so doing, Congress intended to divest the NLRB of jurisdiction over controver-

Briefly . . .

. . . A Commuter's Almanac is being distributed to passengers by the Jersey Central, but it won't deal in prophecy, the first number noted. What it featured was interesting, useful and amusing data such as concerts, stage shows and civic events in the commuting area and reminders of noteworthy birthdays (Marlene Dietrich, December 27, 1904) and historic occasions (Texas entered the Union, December 29, 1845).

RAILWAY MARKET *Outlook* THIS WEEK

Piggyback

► *Trailer Train Company.*—Ordered 1,000 new-type 35-ft, 2-axle flat cars, specially developed to transport highway truck trailers in railroad on-line and interchange piggyback service, ACF Industries; estimated cost between $3,900,000 and $4,200,000; details of new-type car were announced last week by ACF.

► *"Tremendous Future."*—Trailer-on-flat-car operations have a "tremendous future," Roy Fruehauf, president of Fruehauf Trailer Company, said in New York last week; Mr. Fruehauf, pointing out that about 35 U.S. railroads now operate piggyback service, added he "can envision the day—and I don't believe it's too far distant—when the 716,824 boxcars now in use on our railroads will be replaced by flatcars each carrying two truck-trailers. . . We figure that's a potential of 1,400,000 trailers."

New Equipment

FREIGHT CARS

► *Colorado & Southern.*—Has arranged to acquire 300 new box cars.

► *Monon.*—Plans to spend $3,000,000 on improvements this year, including 200 freight cars ordered from Pullman-Standard (180 box cars—50 with 8-ft doors, 130 with 6-ft doors—and 20 70-ton covered hopper cars); 25 miles of 115-lb welded rail; expanding piggyback service through conversion of 20 low-side gondola cars to flat cars; and contemplated order for 40 additional truck trailers.

► *Pacific Great Eastern.*—Ordered 150 70-ton flat cars, 50 70-ton gondola cars, 10 50-ton refrigerator cars—National Steel Car; delivery third quarter 1956.

PASSENGER CARS

► *Boston & Maine.*—Ordered 34 additional rail diesel cars, Budd Company; when deliveries are completed, B&M's roster of RDCs will total 101 units and the road will be completely dieselized.

► *Double-Deck Suburban Cars.*—Two Western railroads are expected to order some 37 cars of this type in the near future.

LOCOMOTIVES

► *Colorado & Southern.*—Will acquire 11 new diesel-electric road-switchers.

New Facilities

► *Pennsylvania.*—Awarded contract for construction of new ore unloading machine at Greenwich Point pier, Philadelphia, to Dravo Corporation; capable of handling 25 tons of ore in one "bite" every 45 seconds, machine will be fourth ore unloader on the pier.

► *St. Marys.*—This road has applied to the ICC for authority to build a 21-mile extension from Kingsland, Ga., to a connection with the Atlantic Coast Line at Folkston.

sies otherwise within its competence solely because the railroad is the complaining party. Furthermore, since railroads are not excluded from the act's definition of 'person,' they are entitled to board protection from the kind of unfair labor practice proscribed."

The court went on to note that NLRB jurisdiction in such matters is "exclusive," and that NH must look there for any available remedy.

Rates & Fares

Rate Hike Case Given Tight Schedule

It's the Ex Parte 196 proceeding, and ICC plan has oral argument set for February 20—Tariffs now published to become effective February 25

The Interstate Commerce Commission has set February 20 as the date for oral argument on the railroads' proposed 7% freight-rate increase for which tariffs are now published with a February 25 effective date.

The commission set the argument date in a January 4 order, which docketed the case as Ex Parte 196 and provided for hearings to cross-examine witnesses submitting evidence in the form of verified statements. All direct evidence and exhibits must be submitted in the form of verified statements under the special rules of practice prescribed for the case by the commission.

"**Possible suspension** of the tariffs" will be involved in the investigation, the commission's order said.

The special rules of practice set February 3 as the date by which verified statements in opposition to the increase must be filed. Verified statements in reply must be filed by February 10. The hearing for the purpose of cross-examining witnesses who have filed verified statements will be held at the commission's Washington, D.C., headquarters, beginning February 13.

As noted above, the oral argument will open there a week later—the 20th. Memorandum briefs, due that day, may be filed in lieu of, or in addition to, oral argument.

The commission also referred to a petition filed January 3 by the National Coal Association, asking for a separate hearing on the railroads' proposal as it applies to bituminous coal. The petition will be made the subject of a subsequent order, the commission said. Railroads have filed a reply urging the commission to deny the petition.

NIT LEAGUE WON'T BE IN EX PARTE 196

The National Industrial Traffic League will not participate in the Ex Parte 196 rate-increase case.

The league's officers made this decision after considering replies made by members of the executive committee to a questionnaire on the matter of participation. The replies were "heavily weighted" on the side of non-participation, the notice advising league members of the decision said. It went on to point out that each member "of course, is free to take part in the case as his individual interests dictate."

People in the News

Minor Named to ICC; Murphy Confirmation Asked

President Eisenhower has submitted to the Senate his nomination of Robert W. Minor for membership on the Interstate Commerce Commission. Mr. Minor is on the staff of the Department of Justice, serving as first assistant to the deputy attorney general, and he was formerly administrative assistant to Senator Bricker, Republican of Ohio, ranking minority member and former chairman of the Senate Committee on Interstate and Foreign Commerce.

The nomination went to the Senate January 9, when the President also submitted for confirmation his appointment of Commissioner Rupert L. Murphy. Commissioner Murphy got an interim appointment late last month and assumed his duties shortly after the first of the year. He succeeded former Commissioner Hugh W. Cross for the remainder of a term expiring December 31, 1957 (*Railway Age*, January 2, page 12). The Senate Committee on Interstate and Foreign Commerce will hold a hearing on the nominations January 25.

Mr. Minor's nomination is for the remainder of a term expiring December 31, 1958. He would succeed former Commissioner J. Haden Alldredge who resigned to enter the practice of law.

Mr. Minor is 36 years old, having been born December 15, 1919, at Columbus, Ohio, where he still maintains his legal residence. He was graduated from Ohio State University with a B.A. degree in 1940, and was awarded a J.D. degree from that university's College of Law in 1948.

Meanwhile, Mr. Minor had been in military service, serving with the infantry in Europe, including the Omaha Beach landings in Normandy.

His service as administrative assistant to Senator Bricker was from February 1949 until February 1953. He was previously assistant counsel of a Senate investigations subcommittee. He has been first assistant to the deputy attorney general since February 1953.

Law & Regulation

Cabinet Report Opposed At Public Expense—Fisher

The public comes last in the minds of those who oppose modernization of transport regulation, Reading President Joseph A. Fisher told the Hershey, Pa., Rotary Club January 9.

Answering "jungle warfare" criticisms of the Cabinet Report, Mr. Fisher declared that such attacks are made by persons who would maintain the status quo regardless of its effect

EAR TO THE RAIL—electronically—Erie signalman Anthony Ceja probes for flaws in the steel. Device he holds sends stream of electrons through rail which emits a steady hum which he hears through earphones. Off-pitch tones indicate defects, and rail at that point is marked for removal. Detector supplements work of rail testing car, is especially useful at switches, joints and crossings.

on the public. He denied that the report's proposals represent an abandonment of rate regulation, noting that the Interstate Commerce Commission would retain the power to prohibit excessive or non-compensatory rates.

"The right to give the user of transportation the benefit of whatever advantages of cost" competing modes of transport offer, is all the railroads seek and what the Cabinet Report recommends, he stated.

[The ICC, in its message to Congress concerning the Cabinet Report, (*Railway Age*, January 2, page 7), cautioned against "too great a removal of restrictions" because "resort to the laws of the jungle with competition in full play will not produce the desired transportation system."]

Supply Trade

General Railway Signal Company has announced the following reassignments: **Franklin George,** formerly resident manager of the New York office, and **Carl V. Scully,** formerly assistant resident manager, are now eastern manager and assistant eastern manager, respectively. **Eugene F. Auth,** formerly resident manager of the Chicago office, and **Louis T. Freed,** formerly assistant resident manager, are now western manager and assistant western manager, respectively. **Charles B. Sampson,** formerly resident manager of the St. Louis office, is now Southwestern manager. **Arthur W. Taff,** director of industrial relations, has been appointed assistant manager, export department. **Raymond G. Pierce,** assistant director of industrial relations, has been appointed manager, industrial relations department.

Harold S. Brooks, sales manager of **W. H. Miner, Inc.,** has retired after 33 years of service with that company. **R. J. Olander,** who has been active in both the mechanical and sales departments for 35 years, has been appointed assistant sales director. **Arthur B. Logan** has been made assistant to sales director and office and personnel manager.

OBITUARY

Jerry D. Brandon, Sr., chairman, director and former president of Brandon Equipment Company, died January 5.

George M. Dallas, 50, former vice-president and assistant treasurer of Stanley H. Smith & Co., died December 14, 1955.

Paul E. Ward, Chicago representative of the railway service division, Oakite Products, Inc., died in an airplane accident near Bloomington, Ill., January 2.

Figures of the Week

11 Months, Net Up $268 Million

It was $830 million, compared with $562 million for like 1954 period, according to AAR estimate—November's $80 million reflected increase of only $3 million

Class I railroads had an estimated net income, after interest and rentals, of $830 million in last year's first 11 months, according to the Bureau of Railway Economics of the Association of American Railroads.

That was an increase of $268 million over the $562 million reported for the first 11 months of 1954. For November 1955, estimated net income was $80 million, up only $3 million from November 1954's $77 million.

Net railway operating income, before interest and rentals, was $1,050,329,204 for the 11 months, up $284 million from the $766,016,100 reported for the first 11 months of 1954. Net railway operating income for November was $103,087,974, up $9 million from November 1954's $94,166,240.

Rate of return for the 12 months ended with November averaged 4.33%, compared with 3.17% for the 12 months ended with November 1954.

Fourteen Class I roads failed to earn interest and rentals in 1955's first

CLASS I RAILROADS—UNITED STATES

	1955	1954
Month of November		
Total operating revenues	$ 873,926,343	$ 793,063,386
Total operating expenses	656,781,142	597,012,682
Operating ratio —percent	75.15	75.28
Taxes	94,744,892	81,489,519
Net railway operating income (Earnings before charges)	103,087,974	94,166,240
Net income, after charges (estimated)	80,000,000	77,000,000
Eleven Months ended November		
Total operating revenues	$9,248,147,540	$8,573,470,254
Total operating expenses	6,951,141,263	6,755,791,805
Operating ratio —percent	75.16	78.80
Taxes	1,017,788,031	821,712,588
Net railway operating income (Earnings before charges)	1,050,329,204	766,016,100
Net income, after charges (estimated)	830,000,000	562,000,000

REWARD FOR QUICK THINKING—For reporting a broken rail and thereby preventing a possible serious accident, Kenneth Thorne, 10, of Sutton, N.D., receives a new bike and a $100 savings bond from R. W. Downing (left), Great Northern's Minot, N.D., division superintendent, and C. O. Hooker, general manager of GN lines east. The boy discovered the broken rail when he investigated the strange sound of a passing train. His report was relayed from the dispatcher at Minot to a fast mail train by radio.

11 months. Eight were in the Eastern district, two in the Southern region, and four in the Western district.

Freight Car Loadings

Loadings of revenue freight in the week ended January 7 totaled 611,299 cars, the Association of American Railroads announced on January 12. This was an increase of 36,636 cars, or 6.4%, compared with the previous week; an increase of 13,947 cars, or 2.3%, compared with the corresponding week last year; and a decrease of 12,930 cars, or 2.1%, compared with the equivalent 1954 week.

Loadings of revenue freight for the week ended December 31 totaled 574,663 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, December 31

District	1955	1954	1953
Eastern	100,250	94,998	86,186
Alleghany	118,729	102,573	96,395
Pocahontas	49,405	42,679	36,056
Southern	103,184	95,026	83,669
Northwestern	61,861	59,323	51,919
Central Western	94,841	91,454	82,944
Southwestern	46,393	43,333	40,636
Total Western Districts	203,095	194,110	175,499
Total All Roads	574,663	529,386	477,805
Commodities:			
Grain and grain products	36,975	36,667	30,825
Livestock	5,833	5,688	5,530
Coal	126,567	108,146	97,001
Coke	14,272	9,364	9,834
Forest Products	30,944	29,474	22,368
Ore	15,733	14,429	14,561
Merchandise l.c.l.	46,102	52,022	44,845
Miscellaneous	298,237	273,596	252,841
December 31	574,663	529,386	477,805
December 24	672,355	561,195	480,978
December 17	714,588	641,879	618,434
December 10	727,228	653,531	651,951
December 3	728,216	661,777	662,026
Cumulative total, 52 weeks	37,883,543	33,914,953	38,215,993

In Canada.—Carloadings for the seven-day period ended December 21 totaled 73,100 cars, compared with 76,523 cars for the previous seven-day period according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
December 21, 1955	73,100	33,657
December 21, 1954	68,374	27,811
Cumulative Totals:		
December 21, 1955	3,982,908	1,606,182
December 21, 1954	3,607,033	1,385,440

Organizations

The task group of the **Eastern Railroad Presidents Conference** will make its first New York presentation on the Cabinet Committee Report on Federal Transportation Policy at a luncheon meeting of the **Transportation Section, New York Board of Trade,** in the Hotel Astor, February 1, at 12:15 p.m.

Railway Officers

ASSOCIATION OF AMERICAN RAILROADS.—Harold R. Alley has been appointed research engineer of the Container and Loading Research and Development Laboratory of the Freight Loss and Damage Prevention Section at Chicago. Mr. Alley is a paper and packaging specialist.

Eual H. Thorton, special representative in public relations, has been appointed manager of the News Service of the AAR. **H. S. Dewhurst** has been appointed special assistant in the public relations department, effective March 1. Mr. Dewhurst has been with the AAR for the past 13 years, during the last five of which he served as secretary of the Safety, Protective, Operating and Medical & Surgical sections and the Joint Committee on Railway Sanitation, at Chicago.

CHICAGO & EASTERN ILLINOIS.—L. B. Grantham, general agent at Memphis, Tenn., has retired after more than 39 years of service.

CHICAGO GREAT WESTERN.—B. R. Harris has been appointed vice-president traffic and industrial departments, traffic headquarters at Chicago, and industrial headquarters at Kansas City, Mo. **G. R. Gregg** has been named resident vice-president, and **G. L. Schwab** has become general traffic manager, both with headquarters at Chicago.

Executive offices are now at 700 Mulberry street, Kansas City 1, Mo.

PITTSBURGH & LAKE ERIE.— As reported in *Railway Age* December 19, 1955, page 56, **John F. Nash** has been named president of this road at Pittsburgh, Pa. Mr. Nash was born at Syracuse, N.Y., September 18, 1909,

John F. Nash

and entered the service of the New York Central in 1925 as a clerk in the station service department. Subsequently, he served as traveling car agent, assistant trainmaster and trainmaster at Buffalo, assistant to general manager of the system, assistant superintendent and superintendent at Albany. From 1951 to 1952 he was general manager, Boston & Albany, at Boston. Mr. Nash joined the P&LE in July 1952 as vice-president.

SOUTHERN.—Charles E. Abernathy, commercial agent at Orlando, Fla., has been promoted to district freight and passenger agent there, succeeding the late **Charles E. Maynard. J. Howard Evans,** commercial agent at Chattanooga, Tenn., has been appointed general agent, freight and passenger departments, at Portland, Ore.

SOUTHERN PACIFIC.—K. C. Ingram, assistant to the president in charge of public and employee relations at San Francisco, retired December 31, 1955.

Albert G. Humphries has been appointed water and fuel engineer, and **Charles G. Kaesms** has become electronics engineer, both at San Francisco.

H. A. Teal has been named assistant manager of personnel at San Francisco.

R. E. Hallawell, general manager at San Francisco, retires February 1 after nearly 42 years of railroad service. Mr. Hallawell also will retire from various positions with several SP subsidiaries.

WESTERN PACIFIC.—Leo J. Gosney, comptroller and general auditor, has been elected vice-president and comptroller, and **Roy E. Larson,** treasurer, has become vice-president and treasurer.

James J. Hickey, general passenger agent, has been named passenger traffic manager, replacing **Joseph G. Wheeler,** who will serve as passenger traffic consultant. **Ernst Gommer,** assistant to passenger traffic manager, has been appointed general passenger agent, and **C. P. Hoctor,** passenger traffic representative, has become assistant general passenger agent.

OBITUARY

Otha C. Banks, 56, terminal trainmaster of the **Louisville & Nashville** at Louisville, Ky., died November 6, 1955, as the result of a heart attack.

Charles E. Maynard, district freight and passenger agent of the **Southern** at Orlando, Fla., died December 13, 1955.

W. E. Plunkett, superintendent, Atlanta joint terminals, **Louisville & Nashville,** died November 10, 1955, as the result of an accident in the yards of the terminals.

John M. Nicholson, 74, who retired in November 1954 as chief engineer of the **Long Island,** died January 8 in St. Vincent's hospital, New York.

E. C. Shively, special counsel to the **Ohio Railroad Association,** died January 3.

Questions and Answers FOR THE TRANSPORTATION DEPARTMENT

Has the number of reports required from station forces decreased in recent years?

L. F. Loree, in his book "Railroad Freight Transportation," states that in 1912 (44 years ago), the number of paperwork forms in use at a typical freight station was 161. Of these, 52 were for the accounting department, three for treasury, 10 traffic, and 72 transportation, while 24 served the dual purposes of transportation and either the accounting or traffic department.

Because of the great present-day interest in systems and methods of reducing paperwork in all departments of the railroad, it is important to know how the number of reports made by station forces now compares with the practice in Mr. Loree's day.

Yes, in most cases.

"In checking the stations on our railroad, I find that the number of reports being furnished varies considerably. The range is from 95 at one of our principal stations to 205 at another station. The difference seems to be accounted for by reports rendered to local offices."—*W. L. Ennis, assistant to vice-president, Milwaukee.*

Substantially reduced.

"It is difficult to make a comparison with the figures given by Mr. Loree. We do not know how Mr. Loree classified the various forms.

"The agency is part of the transportation department and a vast majority of the forms used are in connection with transportation. But some of them could be classified as accounting, treasury, traffic or transportation.

"Most of the forms used at agencies serve a dual purpose. For instance, a bill of lading, first, is the physical receipt for the property; then it becomes the basis for a transportation document—the waybill—and it is filed as a permanent record of shipments received for transportation. The waybill is, first, a transportation document made from the bill of lading. After transportation is completed, it becomes an accounting document. This same situation applies to freight bills and numerous other reports.

"The total number of forms carried in stock by the Southern which are requisitioned by agents is approximately 98. This stock includes forms used by yard offices, exclusive transfers and exclusive telegraph offices. It also includes many forms that have no physical connection with the operation of the agency, such as accident reports, personal injury reports, impact register reports where the register is removed at the station, reports of suits filed, reports of garnishments, etc. Very few, if any, of these non-routine reports are used during the course of a year at the average agency.

"The classification of the agency controls the number of forms used. At the average agency on the Southern there are not more than 30 forms *used*. The Southern, over a number of years, consistently has reduced the paperwork performed at agencies. No accounting work is done there. All this work is done at a central accounting bureau. Reports to the traffic and transportation departments have been cut by more than 70%, and we are striving to further reduce the number of reports made by our agency forces."—*J. R. Formby, assistant to vice-president, Southern.*

Reduction is continuing.

"We are continually seeking to eliminate reports. We have employed a simplified interline ticket reporting at stations, reporting only ticket number and amount of sale. We are preparing to use IBM cards for tickets and the coupon book on interline tickets.

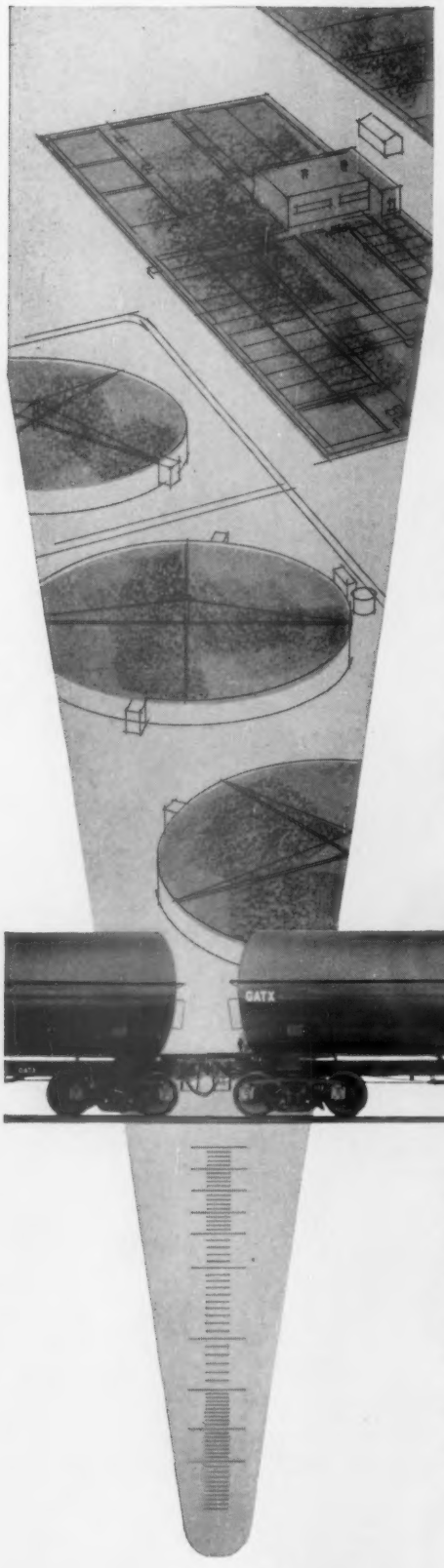
"We also use a through manifest on all time freights. This eliminates wire work and incidental reports. For over a decade we've used manifold waybilling on local traffic, eliminating the need for preparing freight bills at destination."—*L. McLean, supervisor of station service, Northern Pacific.*

Is the origin road responsible for per diem (under the provisions of Per Diem Rule 14) for detention to a car held while awaiting information on a route via which the car can move without necessitating transfer or rearrangement of lading?

Depends on who caused delay.

"Car Service Rule 14 places responsibility for costs of transferring or rearranging of lading under defined circumstances. Per Diem Rule 14 provides reclaim of per diem paid on a car held by reason of a railroad error or shipper's cancellation of order. If, in this case, a railroad error exists, reclaim against erring road is in order. A car held, awaiting a route via which car can move without transfer or rearrangement of lading, would imply improper routing on the part of the originating road haul line, which would constitute a 'railroad error' and a reclaim would be in order."—*Eastern Association of Car Service Officers.*

CONDUCTED By G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, *Railway Age*, 30 Church Street, New York 7.



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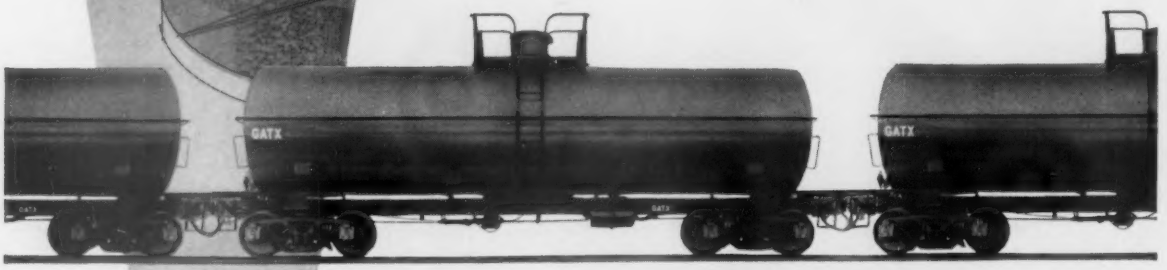

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Now to Improve Steel Supply for Cars

Nobody this side of the Iron Curtain has any genuine interest to be served in the continuation of the freight car shortage very far into 1956. And, as everybody knows, the present "bottleneck" is the supply of steel. Prolongation of the shortage can certainly do the railroads no good—at a time when they're hoping to secure legislation which should enable them to attract increased traffic. Persistence of the shortage would probably not be very helpful, either, to prominent public officials who aspire to reelection in 1956.

It isn't likely that the steel manufacturers or the car builders or anybody else would relish the reinstitution of steel rationing by the government—which, despite denials, is certainly not a threat that can be completely dismissed. When producers suffer protracted delays in getting their goods to market, you never can be too sure what may happen. Even the railroads' competitors are not helped by a railroad car shortage—because, after all, the railroads normally provide a "standby" service for these competitors; and a prolonged shortage of railroad cars is apt to bring home to many shippers their dependence upon railroads.

Is there anything, then, that the most deeply interested parties—the railroads, the equipment manufacturers and the steel industry—can do to improve the present situation and the outlook for the future? Yes, we believe there is.

For one thing, probably, the purchasing and procurement people for the railroads, the equipment builders, and the parts manufacturers could help the steel people do a more effective job, if these users would pool detailed information on their programs and make sure that the steel people fully understand just what the problem is.

The shortage of steel is not merely a question of steel tonnage. That's a big part of the difficulty, of course, but an equally important part is the job of matching components in an orderly program—so that all the steel made available for car-building actually results without unnecessary delay in finished freight cars, available for freight movement. There isn't any good purpose served in getting 90 per cent of car components on the floor—and then having the cars held up for six months for the other 10 per cent, or vice versa. In other words, the steel that is available needs to be so handled that it will produce the maximum number of finished cars in minimum time.

It is plates—not sheets—where the greatest shortage lies. So the prospective easing up in the automotive industry's demand for sheets probably isn't going to help too much, although it will help some. There is less plate capacity today, we are told, than there was right after the end of World War II. But, in a steel manufacturer's effort to do his part in the program, should he be expected to provide plates in ratio to his total tonnage capacity, or in the ratio of his plate capacity to total plate capacity? That is a knotty problem in business policy and ethics—and one to which the right answer isn't made any easier by the lack of a clear, coordinated picture, in one location, of the entire car production picture.

This is one of those situations where the easy answer is always to call in government. How easy (comparatively) it was in the other peaks of postwar car production to go to a government authority, and have it work out all the details of an orderly procurement program! All the railroads and manufacturers had to do under such circumstances was to clamor for more tonnage. If and when they got it, the material came along program-wise.

When the temptation arises to call in government, that's the time for believers in private enterprise to do some long, hard thinking as to ways and means whereby private initiative can do the job better, itself. No doubt it can be done, too, given the will to do so. But somebody has to start. It's always easiest to call on the "other fellow" (in this case, the steel manufacturers) to take the first difficult constructive step. But usually it's more effective if the fellow who has the most to gain is the one to act first.

There's always the antitrust law to be observed, too, which doesn't make the assignment any easier. But probably no law would be violated if every car-building plant—railroad or contract—and every supplier of parts, were to provide detailed centralized information as to programs and schedules, so that a composite picture could be provided to the steel producers. The steel people have hard choices to make, fitting the claims of the railroads—such unsteady customers—into the insistent demands of patrons whose orders are more steady and reliable. The more orderly and convenient the railroad schedules can be made for the steel producers, the less difficult it should be for them to maximize their contribution to the goal of an early end to the freight car shortage.

Some damage *can't* be foreseen...

But! America's Railroads are constantly seeking new and better methods of preventing lading damage, and particularly of protecting freight while in transit. In recent years they have made tremendous progress... in spite of higher speeds and faster handling in the yards. Yet today, in the light of stiffening competition from other modes of transportation, managements know that the problem demands greater attention than ever before. To the leaders in the industry it is obvious that "Billion Dollar Bill"—the obsolete and bad-acting freight car who takes his ugly toll in car repairs, lading damage and lost customers—must be banished in order to assure the future growth of America's Railroads.

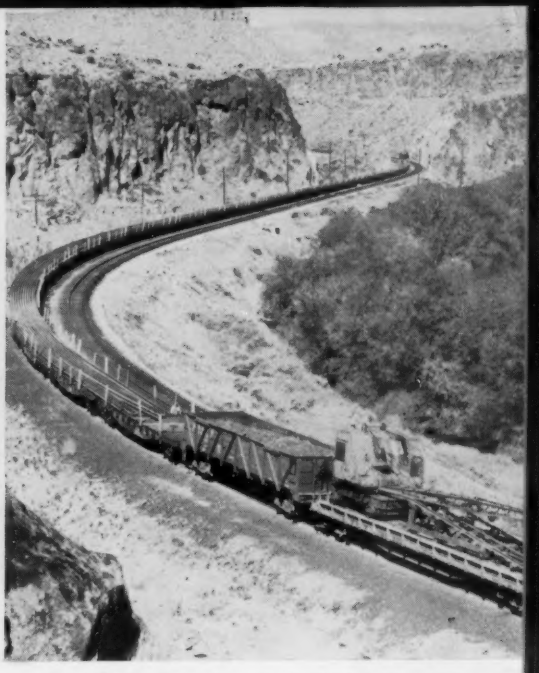
Your acf Representative can tell you exactly how new acf Freight Cars can help lick "Bill", once and for all.

AMERICAN CAR AND FOUNDRY DIVISION,
acf Industries, Incorporated. *Sales Offices:* New York—Chicago—St. Louis—Cleveland—Washington—Philadelphia—San Francisco. *Plants:* Berwick, Pa.—Milton, Pa.—Huntington, W. Va.—St. Louis, Mo.—St. Charles, Mo.

acf **CAR BUILDERS TO AMERICA'S RAILROADS**

Let's stop "Billion Dollar Bill"

1 WELDED RAIL from production line is pushed directly onto a string of specially equipped flat cars. There it is supported and "pigeonholed" on an assembly of roller-bearing rollers mounted, one to a car, behind one of the car's trucks. An adjustable threader, on dummy flat car in background, aids in properly alining rail as it is loaded.



2 RAIL EN ROUTE easily adapts itself to track curvature. Here a train load of 12 rails, is snaking around curves on way to unloading site. Rail is anchored on only one car at middle of train, thus, any movement of the rail due to train

How to Lay Rails 1,440 Ft Long

During the two years just past, the Santa Fe has laid 142 track-miles of continuous-welded rail. In 1956 it plans to lay an additional 250 track-miles of this rail. The road has, therefore, given much study to how best to handle this rail from the time it leaves the welding set-up until it has reached its ultimate destination in track. As a result of these studies, and of practical experience gained in the field, the road has developed techniques of handling, hauling and laying that are giving highly satisfactory results.

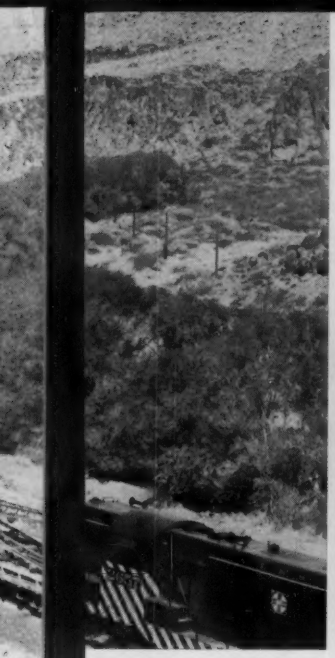
The Santa Fe uses both the oxyacetylene pressure-welding and the Matisa-Schlatter flash butt-welding processes (*Railway Age*, June 6, 1955) for fabricating continuous rails into lengths of 1,440 ft. This article tells how these long pieces are transported and laid, beginning as the rails come from the production line.

5 THREADER suspended from the boom of Burro crane or Speed Swing is used to move rail into center of track prior to laying. The use of this device, which sildes along the rail, makes it unnecessary to hook and unhook rail tongs.

Loading Techniques

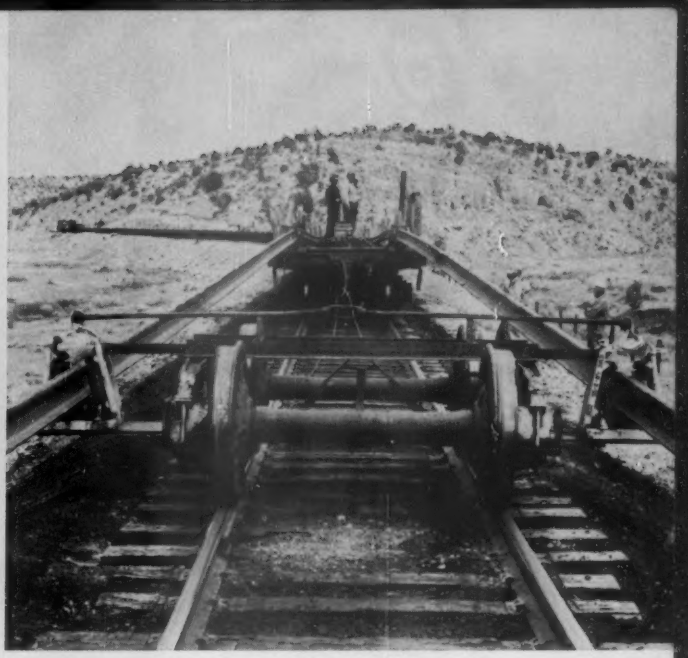
Leaving the welding line, and propelled by the winches which move them from station to station along that line, the rails pass over a dummy flat car spotted between the end of the production line and the rail train. The train consists of 31 specially equipped flat cars, having a capacity of 12 strings of the long rails. The dummy flat car is equipped with an adjustable threading device which can be moved across the car as desired to guide the rails into their proper "pigeonholes" on the rail train. The head end of each rail is fitted with a special temporary shoe which prevents it from digging into the deck of the car as it moves along.

Each specially equipped flat car of the rail train is fitted with a single assembly of 12 special roller-bearing rollers, mounted on a single shaft, which supports the rails during transportation. Rollers in the assembly are separated from each other by vertical steel plates edge-welded to the flat side of another steel plate attached to the deck of the car. These plates form the pigeonholes in which the rails are placed. A man with a bar guides the



on or track curva-
is compensated by
vement of the rail
s. Train consists of
cars.

3 WALKIE-TALKIE set aids in maintaining constant communication with the locomotive engineer during unloading operations, eliminating need for hand signals. This crew member is stationed on the rear car.



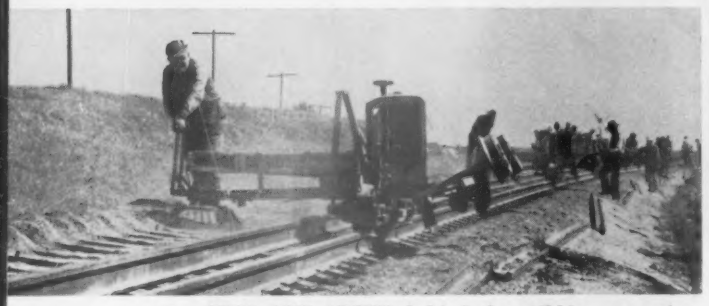
4 TWO RAILS are unloaded simultaneously. Threaders mounted on either corner of the last rail car and on a "caisson," towed about 50 ft behind the rail cars, guide rails to the ground at toe of ballast shoulder or in center of intertrack space.

Techniques developed on Santa Fe make this task seem easy—Both standard and special equipment is used

6 CRANE moves down track while shifting rail to the center. Two men with bars follow crane to steady rail and keep it erect. These men also line out any irregularities in the position of this rail which might interfere with operation of machines during rail laying.

7 SPIKES are pulled by a pair of Nordberg mechanical spike pullers each machine pulling spikes from every other tie. Joint bars are then knocked off, rail is barred out, scrap is thrown out of the track zone and tie plugs are set and driven.

8 CRIBBING MACHINES remove high ballast from rail zone in cribs between the ties. Two types of these machines are used, the Kershaw Kribber (shown here) and the Nordberg Ballast Router. Two men equipped with hoe and broom follow closely behind to clean ties.



9 TIES ARE ADZED behind the cribbing operation. Three Nordberg adzers operate as a team to smooth the ties and provide a solid surface to receive the tie plates. Before the plates are distributed, however the adzed surfaces of the ties are sealed with a coat of . . .

10 . . . HOT CREOSOTE spread by a Fairmont tie sprayer. This machine trips automatically at each tie as it is pushed along.

shoe at the end of each rail as it reaches the rollers to insure that the rail enters the proper compartment.

During transportation, the rails are anchored on only one car near the center of the train. Anchorage is provided by a series of clamping plates which bear on the tops of the rails. This method of anchorage permits the free ends of the rails to move under the effect of varying conditions of temperature and operation. A car of ballast is placed in the train at either end of the string of rail cars. These serve as safety buffers in case operating emergencies should result in longitudinal shifting of the rails. A crane is usually hauled on a flat car immediately behind the locomotive so it will be available during unloading operations. This crane car is set out at the closest siding to the unloading site. There the crane is unloaded with the help of a ramp which is carried on the car.

Radio Controls Unloading

The locomotive and caboose of the work train are equipped with railroad radio. A member of the train crew equipped with a "walkie-talkie" set is stationed on the rear car of the rail train during unloading operations. This man maintains constant communication with the locomotive engineer. The need for hand signals is thus eliminated and the unloading of rail is expedited even under the most adverse operating conditions.

Rails are unloaded two strings at a time. The crane which accompanied the work train makes the first pull necessary to land the ends of the rails on the ground. As the train pulls ahead and out from under the rails the crane maintains its pull until sufficient rail has been landed on the ground to resist the pull of the train. Each succeeding rail is attached to the preceding one by fish plates and is pulled off the train in sequence.

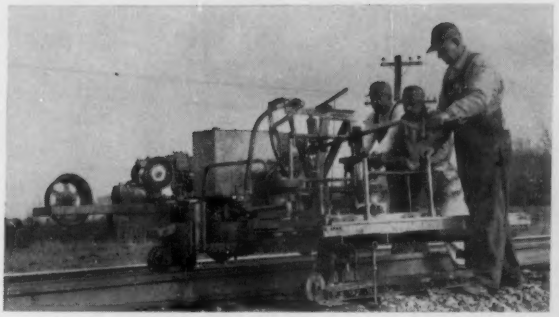
As rails leave the train they pass through threaders mounted on each corner of the end car. They then run through threaders mounted on outrigger frames carried on a "caisson" which is towed by cable about 50 ft behind the last rail car. The caisson is made from an old freight-car truck and is equipped with a handbrake which can be set to maintain sufficient drag to prevent it from "running up" on the rail cars when it is in use.

The outriggers are adjustable so that the threaders can be set 6 to 7 ft on each side of the center of the track.

Use of the threaders on the caisson make it possible to drop the rail at the toe of the ballast shoulder or in the center of the intertrack space as it is being unloaded. In these locations, it is out of the way until required in the rail-laying operation.

The Santa Fe makes no effort to tailor its long rails to fit physical conditions in the field. Whenever conditions require installation of an insulated joint or a switch, the welded rail is cut to fit in the field. A short piece of rail is cut-in on either side of each insulated joint. This permits repairs and adjustments to be made at these points without disturbing the welded rail. Turnouts are

11 PLATE-LINING machine or pre-gager built by the Santa Fe positions plates and distributes the anchor studs used in the gaging operation. The tie plates are placed on the ties in advance of this machine by a gang of five men that follow closely behind the tie sprayer.



12 **GAGING is done with a Dun-Rite gaging machine. This machine accurately positions tie plates so that when rail is placed between the shoulders of plates the head-to-head gage is correct. Holes are drilled through anchor holes of the plate on every fifth tie as the machine moves along to receive . . .**

installed either before or after welded rail is laid as conditions demand.

At farm or unpaved crossings trenches are made through the crossings to receive the rail as it is unloaded. After the rail has been placed in them the trenches are filled in to restore the crossing. At paved crossings, the welded rail is dropped and then pulled back clear of the crossing if the end of the string falls within 5 or 10 standard rail lengths of the crossing. Otherwise, the rail is flame cut at a location outside the crossing and is then pulled back to clear the highway. Before these cut ends are rejoined with standard joint bars during the rail-laying operation, the portions of the rail ends affected by the heat of cutting are sawed off.

Rail Laying Highly Mechanized

During the 1955 working season, when the road laid 103 track-miles of continuous rail, several extra gangs of approximately 100 men each were utilized for this purpose. This work is highly mechanized with the same types of machines that are employed in laying standard-length rails. The gangs vary only in the distribution of men used in carrying out some of the manual operations.

When the steel gang arrives on the ground the first operation is the removal of rail anchors, bond wires, crossing planking and motor-car set-offs throughout the distance where rail is to be renewed. A crane then sets the new rail into the center of the track. This operation involves the use of a threader suspended from the boom of the crane. The rail is inserted in the threader and, as the crane backs down the track, it literally pulls the rail into the center of the track. The remaining steps involved in laying the long rails are shown in the illustrations.

The long rails are anchored by "boxing" every other tie. Standard joint bars are applied to connect the long lengths of rail. A rail saw accompanies the rail-laying crane and is used to cut the long rails as required at insulated joints and elsewhere. A rail drill is used to make the necessary bolt holes where rail has been sawn in the field.

Generally the track in which rail is to be renewed is raised out of face and the ties renewed in advance of the rail-renewal operation. After the new rail has been placed a Jackson Track Maintainer spots up the loose ties and completes the operation.

13 **. . . RACOR STUDS which are driven through these holes and anchor the tie plates in position. The track is now ready to receive the welded rail which is moved from the center of the track into position on the tie plates with the aid of a Burro crane operating on rails or a . . .**

14 **. . . SPEED SWING which straddles the track while placing rail. Two men following crane distribute spikes while 6 to 8 men behind set and start them.**

15 **SPIKE DRIVING is done by two Racor Dual spike drivers which are are air-operated from a track-mounted air compressor. Or spikes may be driven by a 10-man gang equipped with air guns. A gang of 16 men follow spike drivers straightening crooked tie plates, driving missed spikes and distributing and installing rail anchors.**

THE DISPATCHER, at this machine in Saginaw, controls the switches and signals on . . .

THE CENTRALIZED TRAFFIC CONTROL territory of 135 miles between Ludington and Saginaw.

CTC Saves Time for Freights

. . . ON 135 MILES OF SINGLE TRACK

Signal system, which meets the needs of train operation, includes two-aspect signals for siding-to-siding blocks

On 135 miles of single track, used exclusively by freight trains, between Saginaw, Mich., and Ludington on the Chesapeake & Ohio's Northern Region, centralized traffic control has been installed. Previously, no signaling was in service in this territory; switches were hand-thrown, and train movements were authorized by timetable and train orders.

This Saginaw-Ludington section is part of a combined rail-lake ferry route for east-west freight traffic. On Lake Michigan, the C&O operates four train ferries each way daily between Ludington and Milwaukee; two each way between Ludington and Kewaunee; and two each way between Ludington and Manitowoc. These ferries operate every day, the year around. Much of the through traffic both ways between Saginaw and Ludington is in connection with the train ferries.

From Saginaw, the C&O has lines north to Bay City and south to Detroit and Toledo, as well as east through Port Huron, Mich., and St. Thomas, Ont., to Buffalo. From all these lines, westbound traffic is assembled at Saginaw for movement to Ludington to be ferried across the lake. Similarly, eastbound traffic from the ferries is moved eastward to Saginaw to be routed from there on several routes east, north and south. Much of the westbound traffic consists of merchandise and manufactured products. Eastbound traffic includes dairy and agricultural products, meat, lumber and manufactures.

Westward traffic is usually at a minimum on Monday and Tuesday, and is at maximum on Wednesday through Saturday and part of Sunday. Schedules include four through trains each way daily, and these trains must be operated on time to coordinate with the ferries. Extra sections are operated as business demands.

Eighteen to Twenty Trains Daily

Daily, except Sunday, a local freight runs from Ludington to Evart and back to Ludington. Another local runs from Midland to Coleman, then down a 14.7-mile branch to Mt. Pleasant, and back to Midland daily except

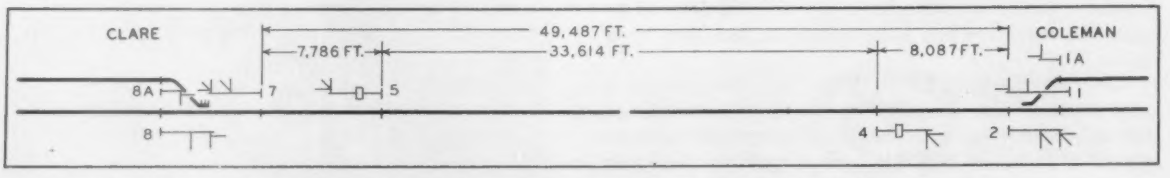


Fig. 1—LEAVING SIGNALS, such as L25 at Coleman, are controlled from siding to siding.

Sunday. Large chemical manufacturing plants and other industries are located at Midland, 20 miles from Saginaw. To assist in serving these industries, a switch run operates from Saginaw to Midland and return, daily except Sunday. A local freight starting at Ludington goes 18 miles to Walhalla, then over a secondary line to Manistee, 27 miles, and returns to Ludington.

The number of trains daily on some sections ranges from 10 to 14, and between Saginaw and Midland from 18 to 20 trains.

No passenger trains are operated in the Saginaw-Ludington territory except that two passenger trains, daily except Sunday, use the 13 miles between Baldwin and Walhalla. Two freights also operate daily on this north-south route.

Between Saginaw and Clare, 51 miles, the grades and curvature are light. The grades are short and range up to a maximum of about 0.55 per cent. The curves are few and range from 2 to 3 deg. Rougher glacial terrain extends west from Clare, with grades ranging up to 1.07 per cent. Curves are more numerous but do not exceed 3 deg. The ruling grade eastward is about 1.00 per cent for 3.9 miles between Baldwin and Reed City. The ruling grade westward is about 1 per cent for 3 miles between Reed City and Baldwin.

The diesel locomotives each consist of two units rated at about 1,500 gross tons, either direction. Trains are operated to make connections for all ferries regardless of whether rated tonnage for locomotives is on hand at departure time. The maximum permissible speed for through freight trains is 59 mph. About 3 hr 30 min is the normal running time, either way, for through freights between Saginaw and Ludington.

Prior to the installation of the new signaling, one new siding was built at Anderson, and six sidings were removed at Branch, Idlewild, Chase, Farwell, Noble and Hersey. The names and car capacities of the power-operated sidings are: Merchon, 100 cars; Freeland, 115; Anderson, 121; Coleman, 97; Clare, 117; Lake, 95; Evart, 96; Reed City, 100; Olivers, 109; Baldwin, 94; and Walhalla, 155 cars. At each end of these 11 power sidings, new No. 16 turnouts were installed, which are good for diverging train movements at 30 mph. Diverging moves at present, however, are made at restricted speed in accordance with restrictive signal indications.

Siding-to-Siding Signaling

The signaling arrangement used on this project is shown in Fig. 1. Leaving signals are controlled from siding to siding, for example, westward Signal 1 displays red for Stop, or green for Clear to authorize a train to go

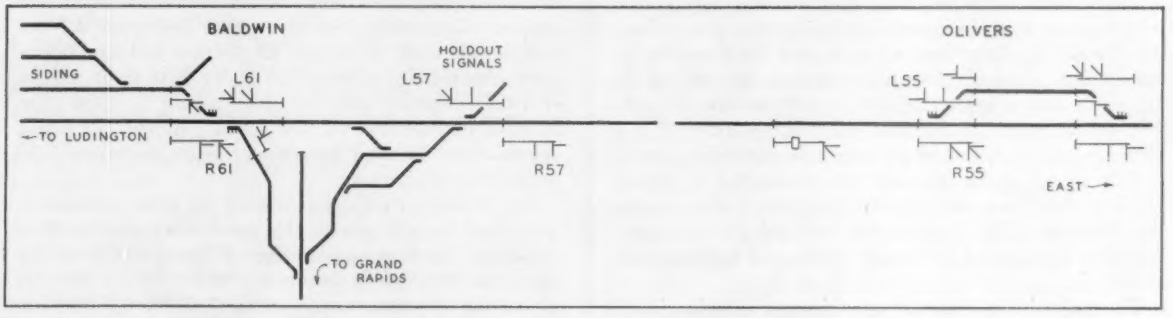


Fig. 2—HOLD OUT SIGNAL L57 permits westward through train to be advanced while switching is underway at Baldwin.

from Coleman to Clare, with no provision for a following westward train to pass Signal 1 until the rear of the preceding train goes beyond Signal 8 at Clare. Signal 1 cannot display yellow, and no intermediate signals are provided for a second train to follow another train into the siding-to-siding block. The decision to use two-aspect leaving signals, for siding-to-siding following train movements, was adopted for this project because: (1) no passenger trains are operated, and all through trains of the same direction are of equal class; (2) ordinarily these through scheduled trains of the same direction are spaced several hours apart.

In this arrangement of two-aspect, siding-to-siding signaling, no intermediate signals, as such, are used. Signal 4 is the approach signal for Signal 2, and Signal 5 is the approach signal for Signal 7. Signal 4 is located more than train-stopping distance from Signal 2, and the same applies for Signals 5 and 7. This leaves about 6.3 miles between signals such as 4 and 5, where the overall distance between sidings is about 9.3 miles.

Baldwin is the interchange point between the Saginaw-Ludington east-west line, and the C&O north-south line between Grand Rapids and Petoskey. Therefore, switching on the main line within the limits of Baldwin is required frequently. To permit this switching to continue while a westbound train is on its way westward from Olivers, a pair of hold-out signals, No. L57 and No. R57, were installed just east of Baldwin, as shown in Fig. 2. These signals are controlled by a lever on the CTC machine.

When switching is to be done for an authorized time on the main track at Baldwin, the dispatcher positions the lever No. 57 to hold Signals L57 and R57 at Stop. This establishes protection for the switching move, and allows the dispatcher to clear Signal L55 at Olivers so that a westbound train can proceed toward Baldwin. Before the allotted switching time has expired, the switch engine clears the main line, and this is shown by a corresponding track-occupancy lamp on the CTC control machine. Then the dispatcher can throw the lever to clear the westward hold-out signal, L57, thereby permitting the westbound through freight to go on.

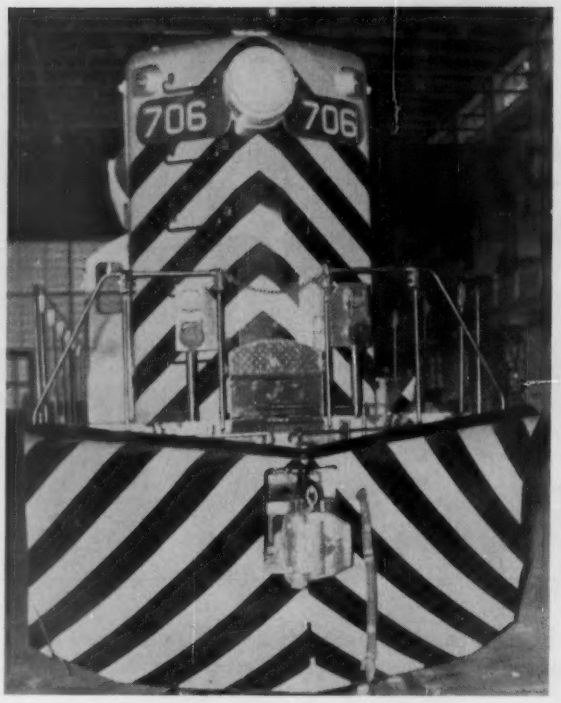
Controls on Sidings

Coded track circuits, which are in operation constantly at 75 codes per minute, are used on the section from one siding to the next. Conventional d-c track circuits are used within siding limits, for the switch detector circuits, and on the sidings.

Each siding is equipped with a track circuit which not only controls a track-occupancy lamp on the corresponding section of the track diagram, but also enters into the control of the signals governing train movements into the siding. Referring to Fig. 1, with the Clare siding unoccupied, when the dispatcher reverses the east switch and sends out a control, Signal 7 will display the red-over-yellow aspect, authorizing the train to enter. If the siding is occupied, the signal cannot be cleared.

This signaling was planned and constructed by signal forces of the Chesapeake & Ohio, Northern Region, under the direction of M. F. Anderson, assistant general superintendent signals and communications, with headquarters at Detroit.

The major items of signaling equipment were furnished by the General Railway Signal Company.



SNOW PLOW ARRANGEMENT used on road switchers.

Equipment Policy Pays Off

. . . Contributes to 33% increase in NOI

Western Pacific freight car-miles, gross ton-miles and freight revenue all increased 11 to 12 per cent in the first eight months of 1955 compared with the same 1954 period, while total operating expenses were held to an increase of only 4.8 per cent. Net from operations of slightly over $8½ million was cut by tax accruals of almost $3½ million, equipment rents, etc., to leave a net railway operating income of $4,414,021, which was 33 per cent more than in the same period of 1954.

This comparatively favorable performance is due among other things to the constructive equipment policy which this company has followed in the acquisition of diesel power, new car equipment and maintenance practices designed to assure reliable performance at minimum expense. Locomotive repair expense decreased 2.7 per cent, freight train car repairs 2.6 per cent and total equipment maintenance expense 1.8 in the first eight months of 1955 compared with the same period in 1954. The ratio of maintenance of equipment expense (including depreciation) to total operating revenue decreased 9.45 per cent in this period.

The Western Pacific was among the first railroads to use diesel freight power (16 years ago) on the West Coast. It has kept accurate figures on unit cost, availability and other major factors ever since. It now operates a total of 168 units, aggregating 226,080 hp, and has been completely dieselized for the last three years. Dur-

SYMBOL FREIGHT TRAIN near Lassenview, Cal., on the "Inside Gateway" Route.

ing this time no steam power has been operated, and the road's six remaining steam locomotives will be disposed of as soon as their flue dates expire.

This railroad has never used "riders" on diesel locomotives and was a pioneer in use of modern detergents in lubricating oil to secure improved performance and reduce maintenance. It was among the first to utilize modern methods in training officers and supervisors, also improving supervisor-employee relations and working conditions in all departments including mechanical.

Developing Supervisors

Early in 1951 the Western Pacific initiated a job-methods plan which involves monthly committee meetings at all major shop and terminal points designed to promote safety, improve working conditions, increase efficiency and maintain closer relations between supervision and maintenance forces. A fixed, fast-moving order of business is specified for these committee meetings at which all members have equal standing under the chairman, regardless of position held on the railroad.

A special effort is made to develop and act on specific suggestions for improvement. Since this plan was inaugurated on the railroad four years ago, in the Mechanical Department alone a total of 310 proposed changes in practice have been discussed and considered from every angle—with 192 accepted, 99 rejected, 4 withdrawn and 15 pending, as of October 15, 1955. For all departments on the railroad, the record shows 681 proposals, 469 approved and in effect.

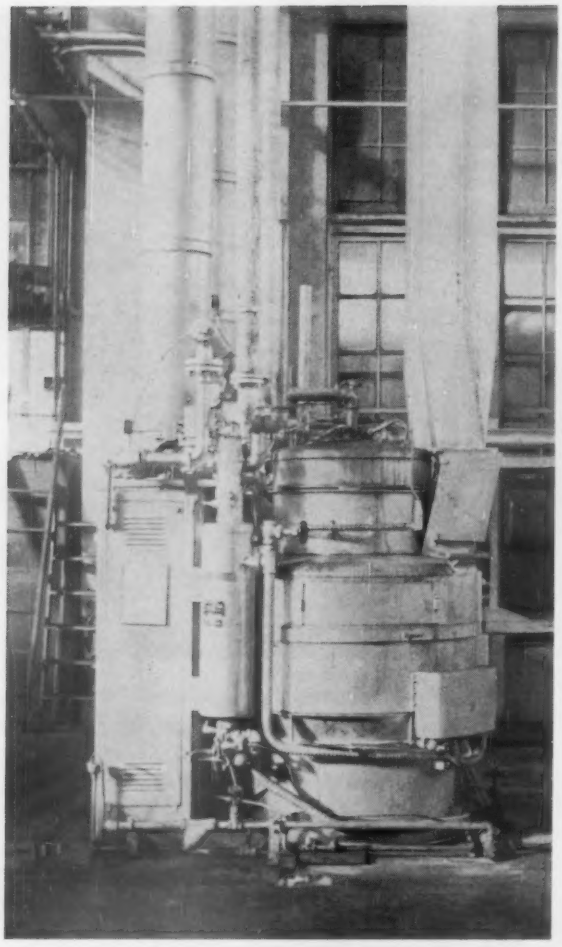
The system of equipment maintenance used on the WP is somewhat unusual in being tailored to fit operational requirements and not set up in general on an arbitrary interval basis. Inspection governs in all cases except in the overhaul of traction motors. Once a month each diesel engine is given a close inspection to determine wear and necessary adjustments are made. Actually, except for a few variations, a system of progressive maintenance is used.

Most of the units are still operating with their original engines accumulating well over a million miles; that is, they have never been removed for a general overhaul. Since 1939 only 15 crankshafts have been renewed. Only two were lost on account of faulty maintenance, and none on account of lubrication failures. None of the engine parts is reclaimed in the sense that worn metal is replaced or items machined for oversize parts. All parts which can be reconditioned are carefully checked and made ready for further service.

The WP policy is to obtain maximum service life from parts and then scrap them, studies indicating that in most instances it is uneconomical to reclaim the integral parts of diesel engines after the service life has been expended. Some of the serious drawbacks to extensive reclaiming

WHAT THE WP RECORD SHOWS

- **Equipment repair cost ratio cut 9.45%**
- **Diesel maintenance averages 12 cents a mile**
- **Locomotive repair force—0.7 men per unit**
- **Traction motor failures—2% per anum**
- **Some switcher motors in service 14 years**
- **Only 15 crankshafts renewed since 1939**
- **Wheels make up to 325,000 miles before turning**
- **Oil changed at 6-month intervals since it is cheaper to change oil than filters**
- **Oil reclamation saves $4,082 per annum**
- **Freight cars:**
  - **Unit repair costs are about halved**
  - **Bad orders cut from 3.6 to 1.2%**
  - **Operating cars 841 miles through four terminals without intermediate attention to journals saves 1 hour per train**



A BATTERY of Vapor automatic steam generators installed at Sacramento shops replace the old-type boiler and avoid the necessity of having stationary engineers around the clock.

are the increased possibilities of failure, short service life of reclaimed parts, and the punitive or associated damage which may occur when reclaimed parts fail.

Repair Costs Reduced

The policy described is credited with keeping maintenance cost at a minimum—currently about twelve cents a mile, and on an accumulative basis about six cents a mile. These figures include all costs such as store expense, accidents, and all heavy as well as running repairs. Less labor is necessary when new parts are used. At present, WP diesel maintenance forces amount to 0.7 men per unit, which is compared with a national average of 2.2 men per unit.

Traction motors and main generators are sent to the manufacturer and replacements are received through unit exchange. Certain minimum traction motor and generator output is needed to justify the expense of building a modern-equipped electric shop and establishing a work force. In order to make such a shop economical, the WP believes a production of at least two traction motors a day is required. The WP record shows traction motor failures of less than two per cent per annum with a total of 672 motors now in operation which compares favorably with other railroads. Failures of 10 to 20 per cent per annum are sometimes reported.

Traction motors are removed from freight and passenger units for dipping and baking at 300,000-mile intervals, which is necessary mainly for armature bearing renewal. This practically eliminates the possibility of a costly armature bearing failure on the road. Traction motors under switch engines are removed for dipping and baking only when it is determined by megohmmeter tests that the insulation is deteriorating. This handling has permitted maximum service life of traction motors under switch engines, most of which are still in operation after 14 years of service.

Main generators are given a megohmmeter test each time the locomotive arrives at a maintenance terminal. The result of this test determines when generators must be removed for dipping, baking and other inspections. Through this method, most of the units still have the original main generators which were installed at the factory, with a service mileage of well over a million miles.

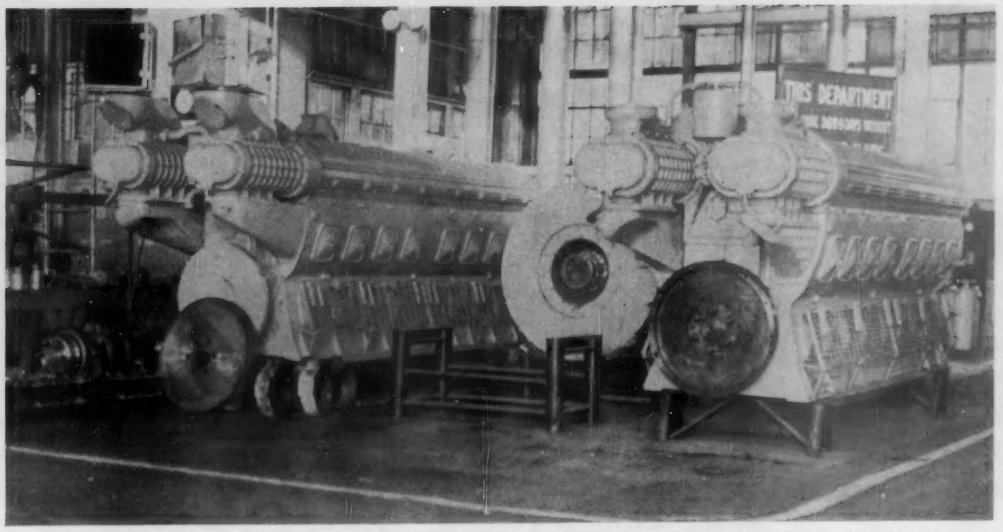
The renewal of relays, wiring interlocks, and other electrical devices is taken care of on a progressive basis, and none of the units has been taken out of service for a complete general renewal of these items. The condition of all circuits is determined by the "meg" test. All units, when assembled in a consist of one locomotive, are given a sequence test at which time all contactors are checked to make sure they are operating properly at each transition position and the load regulators indicate proper loading for each throttle position. At the same time, the battery-charging meters are checked as well as all gages and other meters pertaining to the proper operation of the unit and locomotive.

All maintenance work on passenger and freight road diesels is done at Oroville, Cal. Records kept there show the following average service life of diesel engine parts: pistons, rings and main bearings, 400,000 miles; cylinder liners, 500,000; cylinder heads and traction motors (before rewind) 600,000; wrist pins, crankshafts and main generators (before rewind), 1,000,000 miles; crankcases, indefinite but often over a million miles.

Diesel traction wheels when new generally operate about 200,000 miles in freight service before it is necessary to remove them for turning. The wheels are turned only once and will run another 200,000 miles before removal and scrapping. Some of these wheels on the WP run 325,000 miles before being removed for turning. Traction wheels removed after normal wear generally have sharp flanges. Class B traction wheels are used on all diesel units.

Passenger wheels average 85,000 miles before turning and are generally taken out for tread wear. Some of the wheels, however, make 150,000 miles before turning is required. Passenger wheels are turned twice before they are considered unserviceable for passenger use.

Oil changes are scheduled at six month intervals, and the condition of the oil is determined by blotter, viscometer, color and water tests. Such tests are made each time a unit returns to Oroville for servicing, which occurs every ten days or about 2,000 to 3,000 miles of service. The oil is checked by a machinist inspector who takes a sample from each unit. Laboratory analysis has not been found necessary for the successful operation of the units. Lubricating oil filters of the waste-packed type are changed on an average of 10,000 miles, or approximately



1500-HP DIESEL ENGINES ready to replace bad-order units as engines go through shops.

once a month. The WP finds that this six-month oil-change policy saves costly filter changes, because when oil is run longer, filter changes have to be made more frequently, and it is more economical to change oil than filters.

Drained oil is reclaimed and reused. The recovery of the drained oil amounts to 92 per cent of all oil reclaimed and about 19 per cent of the total oil used. Reclamation costs about 39.4 cents a gallon, resulting in a saving of 8.6 cents a gallon. A total of 47,412 gallons is reclaimed annually, resulting in a saving of $4,082 in lubricating oil.

Economy fuels have been used for the past year without adverse effect in the operation of the diesel engines, according to the WP. This fuel is supplied by various oil companies, of which some furnish a straight cracked fuel, and others a blend of cracked and straight run fuel, which is all mixed in the storage tanks. The only difference noticed so far on the WP between the use of the economy fuel and straight run fuel is that fuel oil filters have to be cleaned or changed more frequently than when only the straight run fuel is used. This results in a slight increase in maintenance cost, but still permits saving of approximately $150,000 per year in fuel costs. No adverse effect has been noted in the service life of engine parts through the use of economy fuels.

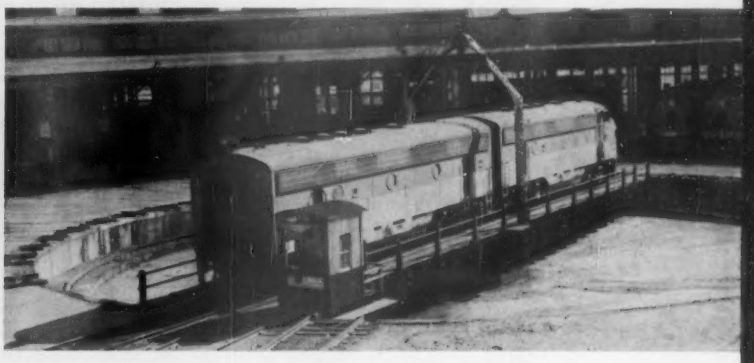
The Oroville diesel shop was converted from an 18-stall steam enginehouse without extensive improvement. Plans are in progress for the erection of a modern three-stall diesel shop (each stall to handle four units). It will be fireproof and designed to promote fullest efficiency, with overhead cranes and mechanized equipment, so a minimum of labor will be necessary. With present facilities, no overhead cranes are available for removing engines and generators, so such work must be done at Sacramento shops.

A system of training mechanics, now in effect, consists first of giving supervisors a thorough course in the best diesel maintenance. Leadmen of both the electrical and machinist crafts assist in training diesel mechanics. After a force has been established, through agreement with the local chairman, the men are changed from one job to another so they become familiar with all phases.

When new men are added to the force, they are placed with one gang for two or three weeks, and then rotated from one gang to another to acquire a thorough knowl-

NEW COMPARTMENTIZER-EQUIPPED box cars are popular with shippers.

DIESELS ARE MAINTAINED at the Oroville roundhouse and diesel shop.



PIGGY-BACK SERVICE was inaugurated on the WP in 1955 and the company has constructed ten specially built flat cars for this purpose.

edge of the work. In this way, the WP avoids having specialists who do only certain types of maintenance work. Any mechanic in the force is capable of performing any phase of maintenance work required on any shift. The supervisors personally check all important repair work vital to the operation of either electrical or mechanical parts.

The success of this system is indicated by the fact that in 15 years of operation the WP has lost only two crankshafts on account of faulty maintenance, and failures and delays average about four per month on the 168 units operated.

A Forward-Looking Car Program

During the last five years the WP has purchased 2,282 new cars, including mill-type gondolas and flats. Some are piggyback and bulkhead cars equipped with roller bearings, box cars with special devices such as auto loaders, damage-free, compartmentized and insulated cars. The addition of these new cars helped in reducing the bad order percentage from 3.6 to 1.2, as 40 per cent of all WP freight equipment is practically new. This has enabled the railroad to establish a retirement and dismantling program in order to dispose of all obsolete and worn-out freight equipment for which there is little or no demand. This has also made possible large reductions in current maintenance costs for car repairs, and made available to shippers the latest improved type freight cars. Last fall only 493 cars remained to complete the retirement and scrapping program.

All heavy car repair work is performed at Sacramento shops, which can turn out an average of 100 cars a month—more, if necessary. All material is palletized and handled by mechanized equipment, such as lift trucks, crane cars, towing tractors and industrial shop trucks. These devices not only save time but decrease labor costs for operations involved in their use.

Assembly line methods are used for progressing cars through the shop and each gang completes its work before cars move to the next work station, so one operation does not interfere with the other.

Studies are constantly being made to discover changes necessary to expedite the repair work. For example, Nulock type lining is used to advantage where complete relining is necessary. Nulock consists of short lengths of lumber which have been glued together to form lining material. It comes in widths of 14 in., requiring only half as many nails as conventional lining. This reduces the time and labor necessary to reline a car. Nulock is purchased already made up from lumber companies for less cost than standard lining.

A schedule for the general repair of freight equipment on a five-year interval is being studied which contemplates the shopping of all cars after that length of service. This eliminates the punitive deterioration occurring on freight equipment through rust and excessive wear, and tends to keep equipment in good condition with the majority of the cars available in the highest classification bracket. In addition, the unit cost of repairing the cars is decreased as much as 50 per cent on the WP since repairs can be made before punitive deterioration has a chance to cause further damage. This practice largely eliminates Class D cars not suitable for high-class lading.

The bad-order situation as of October 31, 1955, shows 1 per cent of the entire ownership as bad order, which was the equipment in shop undergoing repairs. Actually this amounts to a controlled bad-order list as cars are bad ordered and placed on shop tracks so there is no backlog of cars awaiting repairs.

In the matter of conditioning journal boxes, it has been argued that if journal boxes are conditioned properly at the originating terminal, cars should run at least 1,000 miles before further attention is necessary. This theory has been tried out on the WP and found practicable. At Stockton, Cal., journal boxes are conditioned on cars to operate through to Salt Lake City, Utah. At intermediate terminals, only a running inspection and a check of the journal boxes by hand has been found necessary. This handling has saved as much as an hour's time at terminals between Stockton and Salt Lake City, 841 miles, over which distance trains run through four terminals. The number of hot journal boxes recorded on the WP is less than the national average.

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1955	Total (inc. misc.) 1954	Operating Expenses: Maint. Way and Structures: Total 1955	Total 1954	Deprec. and Retirements	Maint. Equipment: Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	Operating ratio 1955	Operating ratio 1954	Net from railway operation	Railway tax accruals	Net railway operating income 1955	Net railway operating income 1954
Akron, Canton & Youngstown	Nov.	171	$507	....	$517	$473	$67	$67	$6	$50	$60	$13	$44	$145	$351	$330	67.8	69.7	$166	$75	$62	$54
	11 mos.	171	5,381	....	5,492	4,642	764	732	65	638	690	151	446	1,555	3,866	3,718	70.4	80.1	1,626	765	551	326
Atchison, Topeka & Santa Fe	Nov.	13,097	44,620	$3,135	52,172	48,182	7,239	7,725	714	8,707	8,225	1,989	1,247	15,616	34,886	33,653	66.9	69.8	17,286	9,233	8,462	6,428
	11 mos.	13,098	442,216	37,726	527,192	484,108	74,777	74,109	7,227	96,787	92,110	21,648	13,209	168,155	376,132	363,784	71.3	75.1	151,060	81,011	68,215	56,106
Atlanta & St. Andrews Bay	Nov.	82	316	1	322	319	34	30	3	20	42	5	8	67	146	165	45.3	51.8	176	74	71	67
	11 mos.	82	3,657	10	3,731	3,474	395	277	19	292	289	58	71	744	1,684	1,592	45.1	45.8	2,047	914	760	677
Atlanta & West Point	Nov..	93	309	27	403	360	39	44	6	66	57	13	16	142	282	273	69.9	75.9	121	24	80	49
	11 mos.	93	2,329	291	3,199	3,536	425	482	64	624	600	143	163	1,303	2,722	2,991	85.1	84.6	477	218	115	145
Western of Alabama	Nov.	133	293	26	360	405	50	55	10	76	66	18	19	127	292	289	80.9	71.3	69	30	50	58
	11 mos.	133	2,601	273	3,283	3,923	532	566	98	705	694	699	192	1,247	2,886	3,111	87.9	79.3	397	243	249	460
Atlantic & Danville	Nov.	205	156	....	158	141	26	31	2	13	23	5	10	51	109	121	68.7	86.0	50	9	13	—18
	11 mos.	205	1,491	....	1,517	1,454	286	325	46	131	143	55	107	514	1,141	1,197	75.3	82.4	375	92	20	—117
Atlantic Coast Line	Nov.	5,288	11,049	952	13,028	12,002	2,303	2,037	146	2,440	2,885	610	380	4,961	10,631	10,423	81.6	86.8	2,397	850	1,556	969
	11 mos.	5,314	117,551	14,715	143,783	138,785	26,230	23,286	1,808	30,554	30,050	6,621	4,321	53,988	121,597	116,243	84.6	83.8	22,186	8,225	11,292	10,028
Charleston & Western Carolina	Nov.	343	559	....	568	544	150	151	10	108	94	42	18	170	460	436	80.9	80.0	108	20	112	94
	11 mos.	343	5,626	3	5,749	6,062	1,507	1,693	114	1,168	1,124	467	207	1,670	4,707	4,957	81.9	81.8	1,042	410	714	657
Baltimore & Ohio	Nov.	6,178	34,148	1,389	38,190	30,704	4,987	3,631	474	8,968	6,596	1,020	983	15,223	31,945	26,170	83.7	85.2	6,245	2,024	2,934	1,342
	11 mos.	6,180	351,371	16,936	395,139	347,639	48,199	41,709	5,314	81,497	69,649	11,148	9,696	157,894	316,520	284,862	80.1	81.9	78,619	26,180	37,852	29,104
Staten Island Rapid Transit	Nov.	29	199	57	262	262	45	48	8	27	27	2	2	146	254	257	97.1	98.1	8	38	—53	—62
	11 mos.	29	2,115	619	2,774	2,620	496	529	75	273	289	19	17	1,476	2,635	2,637	95.0	100.6	139	426	—539	—662
Bangor & Aroostook	Nov.	602	981	26	1,046	706	110	64	16	244	211	101	20	324	761	571	72.7	80.9	285	146	309	195
	11 mos.	602	11,201	318	11,951	11,328	2,610	2,750	187	2,788	2,491	1,057	231	3,353	9,690	9,374	81.1	82.7	2,262	1,100	2,655	1,991
Bessemer & Lake Erie	Nov.	208	2,398	....	2,419	1,184	124	128	19	968	480	136	27	505	1,733	1,099	71.7	92.9	686	553	582	272
	11 mos.	208	24,891	6	25,275	19,529	1,955	2,036	197	7,861	6,067	1,528	317	4,896	16,186	13,905	64.0	71.2	9,089	6,215	6,516	4,900
Boston & Maine	Nov.	1,574	5,600	756	7,185	6,739	986	1,152	159	912	952	203	136	3,118	5,585	5,654	77.7	83.9	1,600	428	622	56
	11 mos.	1,574	60,623	9,126	78,521	74,346	11,205	13,766	1,656	9,807	10,915	2,171	1,308	33,442	59,572	63,307	75.9	85.2	18,950	6,869	6,282	266
Cambria & Indiana	Nov.	35	158	....	158	130	17	20	1	92	101	22	....	27	143	151	90.5	115.7	15	84	95	79
	11 mos.	35	1,750	....	1,750	1,327	214	210	9	952	1,132	244	1	259	1,504	1,652	85.9	124.5	246	982	1,119	736
Canadian Pacific Lines in Maine	Nov.	234	281	35	342	338	75	75	6	120	88	17	8	150	367	356	107.1	105.4	—24	19	—77	—51
	11 mos.	234	5,059	537	5,930	5,382	1,096	1,049	60	1,207	1,079	191	92	2,483	5,045	4,637	85.1	86.2	885	311	166	171
Canadian Pacific Lines in Vermont	Nov.	90	150	14	182	217	49	42	5	44	30	....	7	119	228	207	125.3	95.7	—46	13	—143	—67
	11 mos.	90	2,106	158	2,479	2,426	570	513	87	369	322	2	79	1,384	2,496	2,333	100.7	96.2	—16	143	—877	—714
Central of Georgia	Nov.	1,764	3,245	120	3,628	3,479	602	524	44	608	564	141	159	1,353	2,913	2,724	80.3	78.3	715	217	383	465
	11 mos.	1,764	34,569	1,646	39,300	36,469	6,374	5,718	519	6,564	5,984	1,596	1,776	14,695	31,521	29,764	80.2	81.6	7,779	2,516	4,463	3,837
Central of New Jersey	Nov.	613	4,009	457	4,884	4,678	694	663	93	885	761	170	71	2,089	3,945	3,607	80.8	77.1	938	426	401	423
	11 mos.	613	43,779	5,020	52,714	51,085	7,364	7,023	1,443	9,118	8,842	1,935	783	21,946	41,408	40,745	78.6	79.8	11,305	4,952	4,486	3,428
Central Vermont	Nov.	397	842	37	953	868	195	183	12	94	90	11	15	362	699	690	73.4	79.5	254	43	89	28
	11 mos.	420	8,555	639	9,960	9,808	2,234	2,311	182	1,113	1,154	122	185	3,858	7,793	8,122	78.2	82.8	2,167	464	432	153
Chesapeake & Ohio	Nov.	5,106	31,592	521	33,893	26,151	4,132	2,580	409	5,897	4,415	1,497	693	11,247	23,143	17,750	68.3	67.9	10,750	5,221	6,154	5,011
	11 mos.	5,112	322,971	6,923	348,412	277,891	41,650	38,392	4,932	58,444	52,234	16,485	7,573	110,183	231,739	206,740	66.5	74.4	116,673	56,009	64,445	45,834
Chicago & Eastern Illinois	Nov.	868	2,510	223	2,986	2,888	375	328	36	516	433	134	134	1,129	2,338	2,171	78.3	75.2	648	138	384	359
	11 mos.	868	26,479	2,216	31,355	29,644	4,066	3,837	366	5,312	4,928	1,466	1,471	12,014	24,873	23,904	79.3	80.6	6,482	1,105	3,717	3,077
Chicago & Illinois Midland	Nov.	130	601	....	623	644	39	79	8	110	137	23	30	183	406	483	65.2	75.1	217	124	96	49
	11 mos.	130	6,830	5	7,011	6,990	690	766	90	1,272	1,514	254	346	1,948	4,760	5,332	67.9	76.3	2,251	1,267	883	466
Chicago & North Western	Nov.	7,816	13,608	1,392	16,784	15,862	2,349	2,313	346	2,916	2,906	752	395	7,740	14,193	13,817	84.6	87.1	2,591	1,083	605	299
	11 mos.	7,852	143,757	19,665	183,161	172,969	27,475	27,295	3,671	31,620	31,900	9,127	4,169	81,435	154,180	153,208	84.2	88.6	28,981	12,035	7,765	477
Chicago, Burlington & Quincy	Nov.	8,806	18,486	1,475	22,235	22,101	2,450	2,714	504	3,343	3,712	874	522	8,319	15,506	15,914	69.7	72.0	6,729	3,338	2,981	2,618
	11 mos.	8,826	186,832	17,419	228,219	231,057	34,394	32,507	4,619	36,093	38,810	9,141	5,603	87,770	173,259	173,327	75.9	75.0	54,960	27,365	24,640	25,314
Chicago Great Western	Nov.	1,470	2,668	18	2,861	2,726	468	494	49	477	380	122	120	864	2,000	1,896	69.9	69.5	860	332	323	314
	11 mos.	1,470	29,384	140	31,318	30,031	4,834	4,545	501	4,725	4,429	1,331	1,235	9,508	21,154	20,479	67.5	68.2	10,164	3,986	3,899	3,754
Chicago, Indianapolis & Louisville	Nov.	541	1,722	71	1,963	1,882	235	243	19	289	270	73	106	717	1,475	1,362	75.1	72.3	489	191	202	210
	11 mos.	541	18,117	709	20,441	19,050	3,024	2,764	222	2,990	2,870	802	1,066	7,258	15,573	14,632	76.2	76.8	4,868	1,784	1,962	1,769
Chicago, Milw., St. Paul & Pacific	Nov.	10,641	17,647	1,358	21,330	20,863	3,289	2,864	363	4,197	3,654	904	552	8,331	17,493	16,037	82.0	76.9	3,837	1,666	1,527	2,920
	11 mos.	10,641	189,850	12,193	225,329	217,404	41,144	35,793	4,356	44,112	43,351	9,869	5,290	85,705	187,476	183,266	83.2	84.3	37,853	17,222	14,321	11,125
Chicago, Rock Island & Pacific	Nov.	7,920	13,028	1,331	15,802	15,592	2,218	1,996	227	2,615	2,439	570	493	5,834	11,953	11,361	75.6	72.9	3,849	1,209	2,121	1,895
	11 mos.	7,921	142,880	15,468	174,035	171,515	24,489	24,099	2,654	28,514	28,220	6,294	5,308	63,535	130,996	130,458	75.3	76.1	43,039	16,751	18,848	17,097
Chicago, St Paul, Minn. & Omaha	Nov.	1,616	2,504	140	2,863	2,919	401	450	43	389	412	79	67	1,373	2,360	2,362	82.4	80.9	503	160	102	91
	11 mos.	1,616	26,486	1,615	30,392	29,946	4,711	4,803	480	4,284	4,325	908	737	14,488	25,638	25,668	84.4	85.7	4,754	1,922	—664	—629
Clinchfield Railroad	Nov.	295	1,987	....	2,000	1,897	328	245	25	356	249	67	58	460	1,256	1,002	62.8	52.8	744	186	691	869
	11 mos.	303	17,881	....	17,989	18,970	2,672	3,025	230	3,280	3,253	999	551	3,834	10,839	11,630	60.3	61.3	7,150	2,021	6,549	6,056

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1955	Total (inc. misc.) 1954	Operating Expenses: Maint. Way and Structures: Total 1955	Total 1954	Deprec. and Retirements	Maint. Equipment: Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	Operating ratio 1955	Operating ratio 1954	Net from railway operation	Railway tax accruals	Net railway operating income 1955	Net railway operating income 1954
Colorado & Southern	Nov.	718	1,084	56	1,287	1,369	87	300	16	184	238	42	32	507	874	1,136	67.9	83.0	413	184	138	80
	11 mos.	720	11,912	735	14,071	13,114	2,683	2,019	266	1,858	2,460	456	342	5,193	10,778	10,398	76.6	79.3	3,293	1,606	1,234	1,169
Ft. Worth & Denver	Nov.	1,037	2,368	123	2,696	2,908	651	641	41	430	297	45	63	823	2,072	1,852	76.9	63.7	624	146	226	420
	11 mos.	1,037	17,968	1,527	21,206	21,605	4,241	4,089	375	3,009	3,030	481	679	7,513	16,573	15,940	78.2	73.8	4,633	1,038	1,839	2,532
Colorado & Wyoming	Nov.	40	213	....	334	293	24	37	1	31	34	11	1	114	185	185	55.4	63.1	149	81	64	47
	11 mos.	40	2,157	....	3,421	2,527	371	211	100	333	307	122	15	1,188	2,050	1,662	59.9	65.7	1,371	755	592	392
Columbus & Greenville	Nov.	168	196	....	205	164	34	38	4	20	27	6	6	58	136	134	66.4	81.9	69	50	22	4
	11 mos.	168	1,606	1	1,673	1,713	333	395	41	270	280	69	62	543	1,410	1,459	84.3	85.2	263	228	53	42
Delaware & Hudson	Nov.	792	4,153	136	4,434	4,365	548	887	83	780	822	170	86	1,524	3,174	3,492	71.6	80.0	1,261	330	987	593
	11 mos.	792	45,240	1,709	48,483	44,763	5,847	7,125	591	8,094	8,645	1,958	952	16,348	33,673	35,774	69.5	79.9	14,810	5,460	9,736	5,325
Delaware, Lackawanna & Western	Nov.	962	5,735	767	7,183	6,626	1,399	748	219	1,070	974	322	184	3,404	6,371	5,339	88.7	80.6	812	750	—84	682
	11 mos.	962	59,943	8,270	75,170	71,630	12,098	8,750	1,835	11,359	11,755	3,561	2,023	35,596	64,381	59,436	85.7	83.0	10,790	7,114	2,457	5,935
Denver & Rio Grande Western	Nov.	2,165	6,360	233	6,795	6,410	611	590	106	998	1,073	290	212	2,026	4,132	3,990	60.8	62.3	2,663	1,341	1,248	1,330
	11 mos	2,165	66,716	2,733	71,725	67,068	7,782	8,581	1,113	10,383	10,536	3,113	2,152	21,030	44,557	44,479	62.1	66.3	27,168	13,139	13,623	12,836
Detroit & Mackinac	Nov.	232	189	....	192	183	45	30	2	35	44	10	4	44	141	137	73.3	74.5	51	29	20	23
	11 mos.	232	2,000	3	2,038	1,834	418	430	30	328	280	104	41	449	1,380	1,310	67.7	71.5	657	413	275	251
Detroit & Toledo Shore Line	Nov.	50	656	....	701	608	82	79	3	66	59	21	17	205	385	360	54.9	59.2	316	101	91	62
	11 mos.	50	7,026	....	7,550	6,793	923	875	41	723	647	222	190	2,222	4,218	3,938	55.9	58.0	3,332	1,069	934	768
Detroit, Toledo & Ironton	Nov.	464	1,725	....	1,786	1,525	240	184	53	283	217	91	47	463	1,124	1,541	63.0	101.1	662	207	437	640
	11 mos.	464	18,440	....	19,074	15,974	3,011	2,816	292	3,109	2,817	1,007	466	4,775	12,167	12,310	63.8	77.1	6,908	2,802	4,284	3,008
Duluth, Missabe & Iron Range	Nov.	569	3,272	....	3,845	908	406	364	73	634	535	127	10	1,969	3,181	1,722	82.7	189.7	663	385	202	—329
	11 mos.	569	44,303	8	51,575	38,497	4,343	5,569	699	6,541	7,395	1,416	111	14,914	27,576	26,621	53.5	69.2	23,999	13,172	10,540	5,513
Duluth, South Shore & Atlantic	Nov.	553	483	3	515	512	117	123	12	103	120	24	29	205	479	494	93.1	96.5	35	33	—21	—19
	11 mos.	553	6,665	58	7,077	6,280	1,561	1,450	118	1,373	1,350	255	312	2,331	5,814	5,540	82.2	88.2	1,263	341	684	321
Duluth, Winnipeg & Pacific	Nov.	175	489	1	495	463	33	52	4	68	78	2	5	214	328	326	66.2	70.5	167	39	10	47
	11 mos.	175	5,322	10	5,398	5,095	707	842	48	756	776	24	63	2,348	3,960	4,043	73.4	79.4	1,438	423	158	—122
Elgin, Joliet & Eastern	Nov.	236	3,731	....	4,489	3,691	272	195	27	927	473	105	34	1,573	2,934	2,049	65.4	55.5	1,555	701	475	806
	11 mos.	236	37,496	....	46,003	39,472	2,710	2,598	308	6,363	13,239	1,120	362	16,133	27,466	32,942	59.7	83.5	18,537	8,745	6,299	1,390
Erie Railroad	Nov.	2,224	12,433	548	14,044	12,825	996	1,302	—212	2,243	2,102	511	355	6,324	10,597	10,059	75.5	78.4	3,447	876	2,042	1,133
	11 mos.	2,224	130,116	6,305	147,458	139,931	18,170	19,586	2,353	23,007	22,925	5,586	3,948	64,431	116,885	114,112	79.3	81.5	30,574	9,449	13,611	11,651
Florida East Coast	Nov.	571	2,221	284	2,748	2,511	389	375	43	436	520	99	77	955	1,988	2,070	72.3	82.4	761	192	387	66
	11 mos.	571	23,260	4,800	30,823	28,549	4,217	4,798	485	5,395	5,526	1,086	837	11,117	23,184	24,295	75.2	85.1	7,640	1,003	4,429	124
Georgia Railroad	Nov.	321	634	18	735	757	132	123	9	140	121	33	35	324	669	605	91.1	79.8	66	37	57	146
	11 mos.	321	5,900	180	6,794	7,731	1,203	1,339	103	1,309	1,427	361	366	2,938	6,168	6,794	90.8	87.9	626	372	656	921
Georgia & Florida	Nov.	332	306	....	311	249	101	72	4	36	29	4	22	100	277	210	89.0	84.4	34	16	—11	11
	11 mos.	332	3,163	....	3,213	3,077	896	986	43	364	396	83	208	916	2,558	2,737	79.6	88.9	655	161	209	—73
Grand Trunk Western	Nov.	952	4,509	217	5,222	4,535	560	558	57	904	809	94	75	2,463	4,201	3,773	80.4	83.2	1,021	324	239	37
	11 mos.	952	49,217	2,558	56,243	51,596	6,714	7,644	613	8,408	9,135	1,040	896	25,026	43,217	43,522	76.8	84.4	13,026	3,502	4,424	350
Can. Nat'l Lines in New Engl.	Nov.	172	181	3	200	215	72	59	9	22	26	....	2	114	225	224	112.5	103.9	—25	24	—108	—106
	11 mos.	172	1,858	85	2,168	2,197	719	803	108	236	334	1	29	1,283	2,423	2,892	111.7	131.6	—255	265	—1,192	—1,629
Great Northern	Nov.	8,285	19,918	902	22,508	20,470	3,435	3,620	379	3,692	3,450	688	472	7,774	16,701	15,499	74.2	75.7	5,807	2,649	2,865	1,904
	11 mos.	8,286	219,453	9,839	247,634	230,519	44,556	43,804	3,980	37,893	39,230	7,864	4,958	79,527	176,920	173,978	71.4	75.5	70,713	36,873	29,580	21,878
Green Bay & Western	Nov.	224	372	....	379	359	45	92	4	44	39	9	24	105	233	275	61.4	76.6	146	69	60	23
	11 mos.	224	4,039	....	4,125	3,987	788	1,029	47	453	523	93	246	1,165	2,841	3,161	69.1	79.3	1,284	646	385	161
Gulf, Mobile & Ohio	Nov.	2,757	6,418	314	7,222	6,804	987	1,028	57	1,357	1,166	285	291	2,154	5,141	4,824	71.2	70.9	2,080	725	834	883
	11 mos.	2,757	68,189	3,643	76,762	74,288	11,522	11,252	881	14,414	14,120	3,112	2,995	22,855	55,646	55,241	72.5	74.4	21,116	8,176	9,044	8,126
Illinois Central	Nov.	6,531	20,881	1,762	25,372	23,115	3,945	3,537	435	4,259	3,477	787	554	9,068	18,910	16,593	74.5	71.8	6,462	3,094	2,464	3,165
	11 mos.	6,534	221,312	20,066	268,716	253,605	40,776	39,596	4,542	44,113	42.437	8,593	5,977	93,242	195,566	192,108	72.8	75.8	73,150	37,538	28,836	24,763
Illinois Terminal	Nov.	355	905	36	1,074	968	144	103	43	222	131	41	47	405	882	727	82.1	75.1	192	76	48	92
	11 mos.	355	9,544	446	11,250	10,060	1,596	1,498	291	1,908	1,640	456	491	4,210	8,868	8,463	78.8	84.1	2,382	1,292	522	637
Kansas City Southern	Nov.	891	3,540	94	3,969	3,237	451	352	51	447	395	97	97	1,156	2,281	1,960	57.5	60.6	1,688	806	640	617
	11 mos.	891	36,832	1,135	41,518	37,589	4,200	3,777	477	5,042	4,206	1,031	1,008	11,943	23,570	21,801	56.8	58.0	17,948	8,217	7,257	6,914
Kansas, Oklahoma & Gulf	Nov.	327	406	....	407	368	56	67	7	29	23	11	27	100	232	241	57.1	65.5	175	70	69	52
	11 mos.	327	4,370	....	4,391	4,584	587	712	83	311	370	124	309	1,133	2,561	2,857	58.3	62.3	1,831	774	707	664
Lake Superior & Ishpeming	Nov.	149	405	....	525	253	57	47	10	57	54	17	3	132	269	200	51.1	79.2	257	34	231	15
	11 mos.	149	4,283	....	5,546	3,388	668	632	106	650	640	181	25	1,163	2,662	2,286	48.0	67.0	2,884	1,474	1,696	768
Lehigh & Hudson River	Nov.	96	259	....	259	263	42	46	8	43	27	8	15	89	201	185	77.8	70.4	58	16	13	41
	11 mos.	96	2,893	....	2,907	2,967	395	451	31	344	325	92	164	955	1,995	2,026	68.6	68.3	911	354	279	332
Lehigh & New England	Nov.	178	639	....	645	600	91	69	6	180	137	40	18	152	482	447	74.8	74.5	162	151	119	105
	11 mos.	179	6,897	....	6,959	6,190	865	875	91	1,827	1,546	437	193	2,147	5,475	5,074	78.7	82.0	1,484	1,324	1,038	956
Lehigh Valley	Nov.	1,150	5,293	240	5,836	5,548	665	726	75	944	960	208	136	2,520	4,497	4,459	77.1	80.4	1,339	423	826	734
	11 mos.	1,153	56,930	2,939	63,146	59,882	8,798	9,114	1,101	10,599	10,023	2,278	1,526	26,966	50,544	49,369	80.0	82.4	12,602	2,941	8,228	4,991
Long Island	Nov.	353	1,099	3,671	5,039	5,111	701	720	117	957	891	148	28	2,471	4,319	4,214	85.7	82.4	720	318	60	236
	11 mos.	359	12,207	40,950	55,972	51,477	7,583	7,375	1,011	10,606	10,194	1,443	225	27,104	47,460	46,377	84.8	90.1	8,512	3,416	1,719	—1,932

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1955	Total (inc. misc.) 1954	Operating Expenses: Maint. Way and Structures: Total 1955	Total 1954	Deprec. and Retirements	Maint. Equipment: Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	Operating ratio 1955	Operating ratio 1954	Net from railway operation	Railway tax accruals	Net railway operating income 1955	Net railway operating income 1954
Louisiana & Arkansas	Nov.	753	2,348	44	2,489	2,084	221	247	18	265	265	92	75	710	1,349	1,253	54.2	60.1	1,140	501	518	487
	11 mos.	753	24,424	557	26,058	23,329	2,630	2,930	262	3,014	2,888	1,006	809	6,910	14,227	14,007	54.6	60.0	11,832	5,074	5,628	4,813
Louisville & Nashville	Nov.	4,732	16,221	726	18,238	17,069	2,531	2,672	245	3,629	3,438	828	349	6,269	13,445	13,002	73.7	76.2	4,794	2,942	2,904	2,603
	11 mos.	4,733	144,367	7,431	163,035	179,632	23,023	30,404	2,736	34,592	40,095	9,137	3,908	58,041	126,902	147,476	77.8	82.1	36,133	22,207	25,890	21,594
Maine Central	Nov.	944	1,827	76	2,048	1,873	325	378	41	377	361	75	21	740	1,560	1,573	76.2	84.0	487	223	200	183
	11 mos.	944	20,189	1,099	22,804	22,302	4,493	4,826	316	3,807	4,213	852	226	8,099	17,635	18,369	77.3	82.4	5,169	2,446	2,063	1,500
Midland Valley	Nov.	334	164	....	168	178	49	44	5	17	17	4	5	55	136	127	81.2	71.6	32	7	12	9
	11 mos.	334	2,056	....	2,093	1,917	461	447	62	134	129	40	55	595	1,353	1,317	64.6	68.7	740	326	259	212
Minneapolis & St. Louis	Nov.	1,397	1,589	3	1,660	1,800	260	295	31	264	259	77	99	594	1,379	1,338	83.1	74.4	281	158	113	186
	11 mos.	1,397	18,553	42	19,324	18,837	3,059	3,253	305	3,038	2,926	840	1,093	6,432	14,997	14,889	77.6	79.0	4,328	2,519	1,776	1,643
Minn., St. Paul & S. Ste. Marie	Nov.	3,224	3,405	56	3,638	3,055	568	626	57	654	601	124	82	1,218	2,649	2,602	72.8	85.2	989	580	424	219
	11 mos.	3,224	35,461	861	38,332	36,102	7,619	7,654	581	6,828	6,740	1,340	930	13,100	30,011	30,444	78.3	84.3	8,321	4,786	3,372	2,514
Mississippi Central	Nov.	148	204	....	210	209	61	41	2	25	27	6	15	47	157	140	74.5	67.3	54	22	20	28
	11 mos.	148	2,233	....	2,290	2,220	565	596	25	293	292	64	157	539	1,666	1,702	72.7	76.7	625	255	244	213
Missouri-Illinois	Nov.	172	474	....	477	493	57	55	2	78	78	30	11	103	262	262	54.8	53.2	216	111	114	155
	11 mos.	172	5,274	....	5,306	4,790	645	800	52	832	834	327	121	1,282	2,995	3,077	56.5	64.2	2,310	1,082	1,345	1,135
Missouri-Kansas-Texas Lines	Nov.	3,241	5,356	223	6,168	5,836	1,000	819	103	1,082	949	250	274	2,425	5,103	4,490	82.7	76.9	1,065	210	498	577
	11 mos.	3,241	58,769	2,753	67,337	66,360	9,816	9,707	1,041	10,472	10,116	2,679	2,765	26,197	52,669	51,561	78.2	77.7	14,669	4,376	5,931	6,383
Missouri Pacific	Nov.	6,917	17,086	674	19,568	18,591	3,160	3,014	300	3,491	3,225	826	494	7,106	14,906	13,657	76.2	73.5	4,662	1,550	2,386	3,248
	11 mos.	6,917	177,268	8,418	205,037	194,291	33,310	33,102	3,378	39,271	35,052	8,893	5,362	73,654	158,853	153,466	77.5	79.0	46,183	13,834	25,688	22,398
International Great Northern	Nov.	1,104	2,498	103	2,866	2,640	473	496	48	442	484	120	64	1,148	2,252	2,238	78.6	84.8	614	127	366	253
	11 mos.	1,104	27,357	1,515	31,491	29,040	6,147	5,526	429	5,292	5,233	1,337	702	12,057	25,540	24,896	81.1	85.7	5,951	1,337	3,501	2,363
Gulf Coast Lines	Nov.	1,723	3,108	72	3,429	3,148	603	607	50	480	473	112	99	1,144	2,476	2,339	72.2	74.2	953	345	395	518
	11 mos.	1,723	35,024	893	38,461	36,813	7,289	7,323	522	5,415	5,540	1,249	1,058	12,674	28,083	27,951	73.0	75.9	10,378	2,724	5,236	5,475
Monongahela	Nov.	177	439	....	442	437	72	82	16	54	54	14	1	157	290	312	65.6	71.5	152	12	55	—18
	11 mos.	177	5,059	....	5,089	5,176	711	823	175	603	685	150	8	1,777	3,212	3,457	63.1	66.8	1,877	256	459	127
Montour	Nov.	51	193	....	194	132	20	13	2	49	45	16	1	59	138	124	70.9	94.3	56	44	47	33
	11 mos.	51	1,621	....	1,697	1,522	169	160	26	503	528	180	11	611	1,392	1,407	82.0	92.4	305	308	449	462
Nashville, Chatt. & St. Louis	Nov.	1,043	2,596	107	3,025	3,077	505	517	50	442	436	139	130	1,121	2,317	2,273	76.6	73.8	708	279	419	456
	11 mos.	1,043	22,840	1,050	26,898	32,623	4,774	5,354	522	4,415	4,560	1,521	1,282	10,848	22,583	24,798	84.0	76.0	4,315	1,733	2,283	4,068
New York Central	Nov.	10,710	49,347	8,215	66,125	61,277	8,695	6,731	1,563	11,688	9,810	2,213	1,178	28,510	53,175	46,655	80.4	76.1	12,950	4,924	6,183	7,673
	11 mos.	10,710	520,021	90,540	693,258	646,177	86,548	87,554	11,916	116,001	121,026	24,679	12,047	297,974	547,375	548,127	79.0	84.8	145,882	56,199	67,371	24,702
Pittsburgh & Lake Erie	Nov.	221	3,162	65	3,410	2,681	393	404	95	878	715	278	72	1,188	2,754	2,470	80.8	92.1	656	725	1,112	839
	11 mos.	221	35,465	691	38,015	30,254	4,536	4,542	681	9,285	9,688	3,120	760	12,347	29,195	29,519	76.8	97.6	8,820	8,013	11,966	7,521
New York, Chicago & St. Louis	Nov.	2,178	13,680	152	14,332	12,465	1,616	1,340	172	2,323	1,874	382	346	4,976	9,724	8,358	67.9	67.1	4,608	2,214	1,939	1,672
	11 mos.	2,178	141,841	1,605	148,374	132,650	16,319	15,120	1,604	23,280	21,363	4,048	3,696	52,113	100,329	93,346	67.6	70.4	48,045	23,234	20,190	15,899
New York, New Haven & Hartford	Nov.	1,769	7,674	4,029	13,295	12,447	1,303	1,328	274	2,144	1,879	447	269	5,787	10,409	9,700	78.3	77.9	2,886	753	1,217	949
	11 mos.	1,769	82,116	43,297	141,635	137,043	15,206	18,267	2,921	20,860	20,621	4,586	2,744	64,034	112,491	110,680	79.4	80.8	29,144	7,360	11,057	6,652
New York Connecting	Nov.	21	254	....	284	317	72	108	25	8	18	....	....	72	155	200	54.7	63.2	129	87	48	34
	11 mos.	21	3,703	....	3,984	3,732	1,064	1,169	278	213	260	....	....	973	2,286	2,345	57.4	62.8	1,697	931	674	462
New York, Ontario & Western	Nov.	541	455	....	470	471	100	128	21	77	84	22	26	252	488	511	103.7	108.5	—18	41	—134	—147
	11 mos.	541	5,077	....	5,231	5,427	1,265	1,347	230	957	969	246	271	2,760	5,588	5,667	106.8	104.4	—357	419	—1,660	—1,450
New York, Susquehanna & Western	Nov.	120	370	44	433	524	50	43	5	58	46	13	10	191	343	327	79.2	62.4	90	14	37	68
	11 mos.	120	4,526	487	5,254	5,318	607	541	60	646	651	141	92	2,216	3,956	3,950	75.3	74.3	1,298	436	300	332
Norfolk & Western	Nov.	2,126	16,896	254	18,107	15,013	2,094	1,648	329	3,508	2,877	695	348	5,593	12,177	9,950	67.2	66.3	5,930	3,800	3,238	2,752
	11 mos.	2,128	178,365	3,343	190,403	154,272	23,306	22,898	3,495	38,453	32,995	7,559	3,701	54,641	126,791	114,911	66.6	74.5	63,612	41,212	33,370	21,103
Norfolk Southern	Nov.	604	895	....	910	905	191	198	13	120	123	29	47	263	669	677	73.5	74.7	241	98	85	82
	11 mos.	605	9,259	....	9,416	9,099	2,015	2,016	151	1,351	1,344	310	514	2,789	7,241	7,339	76.9	80.7	2,175	993	695	556
Northern Pacific	Nov.	6,866	14,837	599	16,540	14,936	2,253	1,996	244	2,786	2,528	557	395	6,139	12,420	11,467	75.1	76.8	4,120	2,555	2,117	1,818
	11 mos.	6,866	149,977	6,707	168,484	157,367	23,422	24,676	3,176	29,400	29,737	5,876	4,167	64,942	130,569	130,704	77.5	83.1	37,915	22,665	18,715	13,763
Northwestern Pacific	Nov.	329	1,035	4	1,065	589	272	134	21	105	63	4	7	353	758	399	71.2	67.7	307	62	74	41
	11 mos.	329	13,246	45	13,566	12,443	3,478	3,140	279	1,135	990	44	69	4,003	8,942	8,231	65.9	66.2	4,624	1,756	1,034	953
Oklahoma City-Ada-Atoka	Nov.	132	77	....	77	79	17	18	2	1	1	....	2	17	41	42	52.8	53.6	36	11	11	8
	11 mos.	132	834	....	842	1,111	184	225	27	19	17	....	20	189	456	537	54.1	48.3	386	135	107	196
Pennsylvania	Nov.	10,037	62,298	9,853	80,899	70,491	7,928	7,751	1,352	17,706	13,983	2,891	1,259	35,770	66,415	57,381	82.1	81.4	14,484	5,384	6,034	6,321
	11 mos.	10,037	660,192	109,932	856,141	780,526	91,466	90,041	15,258	182,375	167,423	31,988	13,516	374,315	697,603	654,921	81.5	83.9	158,538	55,855	71,571	46,611
Pennsylvania-Reading Seashore Lines	Nov.	358	626	85	727	730	200	179	32	113	100	22	9	473	845	804	116.2	110.1	—118	60	—334	27
	11 mos.	358	6,683	1,677	8,589	8,652	2,180	2,118	276	1,223	1,130	240	126	5,309	9,269	9,228	107.9	106.7	—679	669	—3,018	—2,842

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1955

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1955	Total (inc. misc.) 1954	Operating Expenses: Maint. Way and Structures: Total 1955	Total 1954	Deprec. and Retirements	Maint. Equipment: Total 1955	Total 1954	Deprec. and Retirements	Traffic	Transportation	Total 1955	Total 1954	Operating ratio 1955	Operating ratio 1954	Net from railway operation	Railway tax accruals	Net railway operating income 1955	Net railway operating income 1954
Pittsburg & Shawmut	Nov.	97	134	....	135	146	42	17	4	33	42	12	4	34	125	109	92.7	74.5	10	24	37	60
	11 mos.	97	1,702	....	1,716	1,720	330	348	46	374	534	129	51	402	1,266	1,460	73.8	84.9	450	85	851	536
Pittsburgh & West Virginia	Nov.	132	738	....	741	627	112	98	24	131	118	37	66	206	559	485	75.4	77.5	183	78	101	103
	11 mos.	132	7,888	....	7,932	6,730	1,198	1,074	264	1,385	1,318	401	680	2,053	5,762	5,334	72.7	79.3	2,170	922	1,237	1,022
Reading	Nov.	1,304	9,541	602	10,921	9,383	1,576	1,191	301	1,954	1,931	422	166	4,082	8,210	7,372	75.2	78.6	2,711	966	1,555	1,182
	11 mos.	1,304	95,518	6,157	108,407	99,717	14,512	12,506	2,268	20,716	19,752	4,608	1,748	42,023	83,727	78,580	77.2	78.8	24,680	9,425	13,683	12,405
Richmond, Fredericksburg & Potomac	Nov.	118	1,280	356	1,935	1,814	186	270	24	306	311	67	24	681	1,317	1,401	68.1	77.2	618	242	277	106
	11 mos.	118	15,739	5,065	23,906	23,554	2,926	3,242	276	3,544	3,648	732	254	7,936	16,075	16,525	67.2	70.2	7,830	3,993	2,543	2,528
Rutland	Nov.	391	379	....	417	387	84	80	10	53	57	13	27	145	337	336	80.9	86.9	80	25	26	—1
	11 mos.	392	4,038	....	4,417	4,170	861	848	95	563	597	148	284	1,609	3,619	3,728	81.9	89.4	799	309	223	—123
Sacramento Northern	Nov.	267	148	....	161	191	54	47	4	13	17	3	2	86	167	149	103.3	77.8	—5	14	—38	3
	11 mos.	267	2,228	....	2,339	2,406	635	707	53	155	167	35	24	831	1,804	1,842	77.1	76.5	535	160	164	143
St. Louis-San Francisco	Nov.	4,610	9,227	337	10,310	9,274	1,482	1,461	174	1,597	1,580	525	397	3,645	7,609	7,348	73.8	79.2	2,701	1,392	1,393	1,101
	11 mos.	4,606	99,651	4,306	112,179	105,007	16,402	16,511	1,978	19,088	17,826	5,789	4,076	40,838	86,331	84,965	77.0	80.9	25,848	13,037	13,084	9,808
St. Louis-San Francisco & Texas	Nov.	157	284	3	312	347	52	44	4	34	28	1	28	153	279	254	89.2	73.3	34	9	—5	11
	11 mos.	157	3,997	41	4,282	4,229	626	512	47	362	350	13	293	1,700	3,107	2,945	72.6	69.6	1,174	393	231	294
St. Louis-Southwestern Lines	Nov.	1,561	5,759	14	5,961	5,163	641	587	63	623	466	115	161	1,728	3,361	2,892	56.4	56.0	2,601	1,321	1,017	1,473
	11 mos.	1,561	59,282	208	61,449	53,954	7,454	7,616	723	6,515	6,770	1,188	1,933	17,937	35,752	34,946	58.2	64.8	25,696	12,902	9,837	6,920
Seaboard Air Line	Nov.	4,064	11,120	865	13,032	12,075	1,681	1,822	181	2,327	2,173	553	402	4,349	9,316	8,814	71.5	73.0	3,716	1,412	2,066	1,802
	11 mos.	4,064	117,445	11,233	139,737	135,891	20,266	20,601	2,063	25,602	24,583	6,008	4,113	45,561	101,303	99,446	72.5	73.2	38,434	14,001	22,093	20,424
Southern Railway	Nov.	6,289	20,603	944	23,233	22,074	2,718	2,740	279	3,759	3,346	780	415	6,798	14,668	13,971	63.1	63.3	8,565	2,548	5,506	3,694
	11 mos.	6,289	220,854	13,425	252,557	226,365	32,049	32,131	3,773	42,143	40,531	8,531	4,449	76,190	165,490	160,680	65.5	71.0	87,068	38,461	42,874	30,360
Alabama Great Southern	Nov.	326	1,524	46	1,703	1,458	245	230	41	295	304	60	36	508	1,178	1,110	69.2	76.1	524	238	287	183
	11 mos.	326	16,974	711	19,050	15,921	2,631	2,497	392	3,335	3,145	651	397	5,380	12,711	11,821	66.7	74.2	6,340	2,736	3,102	2,109
Cinn., New Orleans & Texas Pacific	Nov.	337	3,379	102	3,686	3,455	661	480	279	671	565	146	75	870	2,445	2,013	66.3	58.3	1,242	682	669	625
	11 mos.	337	39,748	1,793	43,820	38,116	6,113	5,250	910	6,936	6,534	1,519	858	10,199	25,835	23,640	59.0	62.0	17,985	9,217	8,700	6,488
Georgia Southern & Florida	Nov.	475	804	37	913	816	84	265	16	69	79	10	24	266	488	672	53.4	82.4	425	38	241	—54
	11 mos.	475	8,264	689	9,750	8,669	2,475	2,220	109	857	761	90	181	3,121	7,066	6,554	72.5	75.6	2,684	464	147	—36
New Orleans & Northeastern	Nov.	204	904	33	1,000	945	207	169	27	136	142	43	22	239	665	600	66.5	63.5	335	164	146	132
	11 mos.	204	10,922	501	12,119	10,875	1,848	2,157	215	1,496	1,607	470	233	2,471	6,699	7,180	55.3	66.0	5,420	3,090	2,199	1,448
Southern Pacific	Nov.	8,124	39,135	2,531	44,282	42,068	5,688	5,283	571	9,130	8,207	1,988	947	17,885	35,874	32,044	81.0	76.2	8,408	3,421	4,036	4,733
	11 mos.	8,128	429,677	29,602	489,181	456,815	61,132	56,114	5,544	101,958	96,409	21,364	9,971	191,567	387,371	365,296	79.2	80.0	101,810	41,526	47,089	38,687
Texas & New Orleans	Nov.	4,315	10,423	361	11,485	10,509	2,493	2,302	241	1,813	1,488	156	316	4,423	9,711	8,168	84.6	77.7	1,774	430	357	565
	11 mos.	4,315	113,037	4,893	125,465	116,069	23,985	21,696	1,755	17,855	16,508	1,629	3,106	44,257	95,765	90,736	76.3	78.2	29,700	10,585	7,278	5,610
Spokane International	Nov.	150	230	....	239	240	24	9	3	23	28	1	6	61	130	139	54.5	57.8	108	14	64	63
	11 mos.	150	3,167	....	3,304	3,031	508	519	28	277	287	88	65	786	1,775	1,814	53.7	59.9	1,529	539	681	595
Spokane, Portland & Seattle	Nov.	947	2,349	74	2,586	2,501	441	426	136	501	390	108	28	928	1,996	1,717	77.2	68.7	590	321	206	672
	11 mos.	946	27,592	886	30,169	26,854	4,244	3,999	618	4,365	4,200	1,190	329	9,783	19,840	18,561	65.8	69.1	10,330	3,956	5,466	5,147
Tennessee Central	Nov.	286	440	....	452	412	80	76	17	70	60	20	15	125	316	301	70.0	73.1	135	22	57	34
	11 mos.	286	4,558	16	4,704	4,183	785	835	71	695	647	219	163	1,465	3,383	3,287	71.9	78.6	1,320	264	490	210
Texas & Northern	Nov.	8	154	....	157	100	5	4	....	11	8	3	1	9	31	24	19.9	24.1	126	2	101	47
	11 mos.	8	1,451	....	1,507	856	45	43	4	107	91	30	12	84	307	283	20.4	33.1	1,199	16	941	335
Texas & Pacific	Nov.	1,831	6,337	301	7,181	6,473	853	796	112	1,079	1,044	251	199	2,308	4,775	4,425	66.5	68.4	2,405	1,027	1,026	676
	11 mos.	1,831	64,077	3,565	73,572	70,448	11,009	10,870	1,118	11,509	11,814	2,751	2,134	24,326	52,733	52,089	71.7	73.9	20,839	7,750	8,980	7,225
Texas Mexican	Nov.	161	221	....	234	236	85	56	5	28	45	10	10	65	206	181	87.8	76.9	29	....	5	16
	11 mos.	161	2,596	....	2,793	2,434	604	607	61	317	330	108	108	733	1,965	1,926	70.3	79.1	828	337	217	97
Toledo, Peoria & Western	Nov.	239	590	....	597	564	53	76	7	47	55	11	52	140	336	366	56.2	64.9	261	122	80	52
	11 mos.	239	6,426	....	6,513	6,350	940	1,012	76	590	612	126	517	1,552	4,068	4,017	62.5	63.3	2,445	1,031	730	698
Union Pacific	Nov.	9,809	38,371	2,210	43,573	41,882	5,225	5,255	1,104	7,601	7,338	1,663	978	15,060	30,739	30,227	70.5	72.2	12,834	6,609	4,295	4,137
	11 mos.	9,812	405,527	27,516	466,549	441,859	61,620	57,025	6,930	83,274	80,968	18,000	11,432	157,720	336,874	332,474	72.2	75.2	129,675	65,827	42,790	28,999
Utah	Nov.	99	141	....	141	115	17	20	1	20	24	8	1	42	89	91	62.6	78.5	53	34	25	28
	11 mos.	99	1,143	....	1,145	942	158	171	14	289	392	86	9	363	902	993	78.7	105.5	244	186	109	—108
Virginian	Nov.	611	3,600	1	3,735	3,275	483	429	66	720	657	198	48	738	2,075	1,861	55.6	56.8	1,660	997	984	817
	11 mos.	611	38,538	10	40,094	33,383	4,909	4,704	689	7,815	7,099	2,153	534	7,845	22,149	20,872	55.2	62.5	17,945	10,536	10,407	7,303
Wabash	Nov.	2,393	9,027	421	10,344	9,348	1,158	1,059	280	1,431	1,161	368	317	4,161	7,506	6,804	72.6	72.8	2,839	1,039	1,005	1,065
	11 mos.	2,393	95,206	4,429	108,272	100,238	12,684	12,902	1,619	14,826	14,411	4,016	3,423	44,050	79,588	77,751	73.5	77.6	28,684	10,387	11,451	8,431
Ann Arbor	Nov.	294	772	16	801	761	77	74	16	165	128	23	29	356	650	578	81.2	76.0	151	75	47	80
	11 mos.	294	8,338	24	8,569	8,021	1,019	1,020	147	1,557	1,463	329	318	3,648	6,782	6,602	79.1	82.3	1,787	813	693	561
Western Maryland	Nov.	846	3,850	3	4,089	3,577	388	698	43	710	618	211	115	1,253	2,698	2,683	66.0	75.0	1,391	660	1,011	799
	11 mos.	846	40,518	38	43,062	38,010	5,729	5,652	639	7,015	7,135	2,256	1,135	12,760	29,192	28,165	67.8	74.1	13,870	7,025	9,444	7,266
Western Pacific	Nov.	1,193	4,399	155	4,674	4,026	736	673	96	571	712	193	203	1,328	3,136	2,959	67.1	73.5	1,537	657	731	453
	11 mos.	1,193	46,698	2,179	49,997	44,179	8,697	7,904	978	6,920	7,231	1,991	2,222	14,980	35,714	33,863	71.4	76.7	14,284	5,997	7,069	5,125
Wisconsin Central	Nov.	1,042	2,300	31	2,484	2,250	286	305	40	364	407	87	73	979	1,811	1,841	72.9	81.8	674	162	304	118
	11 mos.	1,042	26,009	403	28,061	26,430	4,055	4,351	455	4,137	4,470	961	809	10,752	21,005	21,651	74.9	81.8	7,056	1,660	3,659	1,812

ADVERTISERS IN THIS ISSUE

A

ACF Industries 16, 17
Agency—Hicks & Greist, Inc.

Armco Steel Corporation 1
Agency—N. W. Ayer & Son, Inc.

C

Classified Advertisements ..... Inside Back Cover

D

Department of Treasury, State of New Jersey, Administrative Division ..... Inside Back Cover

F

Fairbanks-Morse & Co. ..... Inside Front Cover
Agency—The Buchen Company

G

General American Transportation Corporation 14
Agency—Weiss & Geller, Inc.

General Railway Signal Company ..... Back Cover

H

Hyman-Michaels Company ..... Inside Back Cover

I

Iron & Steel Products, Inc. ..... Inside Back Cover

M

Mayer Pollock ..... Inside Back Cover

Mississippi Valley Equipment Co. .... Inside Back Cover

R

Railway Educational Bureau, The ..... Inside Back Cover

U

Union Switch & Signal Division of Westinghouse Air Brake Company 2
Agency—Batten, Barton, Durstine & Osborn, Inc.

V

Victorian Railways ..... Inside Back Cover

W

Westinghouse Air Brake Company 4
Agency—Batten, Barton, Durstine & Osborn, Inc.

Wine Railway Appliance Company ..... Front Cover
Agency—Thomas J. Stead Advertising

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